

**FLORENCE COPPER INC.**

1575 W. Hunt Highway, Florence, Arizona 85132 USA

florencecopper.com

January 28, 2021

Arizona Department of Environmental Quality
Water Quality Compliance Section Mail Code 5415B-1
1110 West Washington Street
Phoenix, Arizona 85007

Attention: Tracy Bunch

Subject: Fourth Quarter 2020 Monitoring Report
Temporary Aquifer Protection Permit (APP) No. P-106360

Dear Mr. Bunch:

Florence Copper Inc. (Florence Copper) is submitting this report in accordance with Section 2.7.4.4 of Temporary APP No. P-106360, issued December 16, 2020 (LTF No. 86828) for the Florence Copper Project's Production Test Facility (PTF). The facility began active operations on December 15, 2018. The rinsing demonstration for the PTF began on June 26, 2020. The completed self-monitoring report forms (SMRF) for the fourth quarter (Q4) 2020 has been submitted to the on-line MyDEQ portal.

Background Information

The Florence Copper Project is an in-situ copper extraction facility subject to three related permits issued by the Arizona Department of Environmental Quality (ADEQ) and the U.S. Environmental Protection Agency (USEPA).

APP Covering the 1997-98 BHP Pilot Facilities and Future Operations (Sitewide APP):

- ADEQ APP No. P-101704 (LTF 76820) dated December 8, 2020.

Prior to the amended permit issued on December 8, 2020, the Florence Copper Project was regulated under APP No. P-101704 (LTF 65804) dated October 13, 2017.

A test wellfield, a small leachate processing facility, and a double-lined evaporation pond were constructed as authorized by APP No. P-101704 in 1997. The Pilot Test Facility operated from October 31, 1997 to February 9, 1998. The test area was rinsed until September 1, 2004. Cessation of hydraulic control for testing was approved by both agencies and the wellfield has since remained inactive. Subsequently, no Sitewide permit related activities took place until the issuance of the amended permit on December 8, 2020. The authorized facilities and monitoring wells are identified on Figure 1. Reporting required by APP No. P-101704 is provided under separate cover; however, some information pertains to multiple permits and is reported accordingly.

Permits Covering the Current Production Test Facility

- ADEQ Temporary APP No. P-106360 (LTF 86828) dated December 16, 2020¹; and
- USEPA Underground Injection Control (UIC) Permit No. R9UIC-AZ3-FY11-1 dated December 20, 2016.

These permits authorize operation of the PTF and set forth monitoring requirements to be applied at the PTF which lies within the area covered by the Sitewide APP. The Temporary APP and UIC facilities and monitoring wells are identified on Figure 1. The configuration of the PTF wellfield is shown on Figure 2. The facility received authorization to proceed with pre-operational activities on July 13, 2017, and the PTF wellfield was completed and began operations on December 15, 2018. The rinsing activities for the PTF began on June 26, 2020. Solutions from the wellfield continued to be processed through the Solvent Extraction/Electrowinning (SX/EW) plant to produce copper in Q4 until October 29, 2020. Wellfield rinsing activities will continue into 2021.

This report documents monitoring activities required by Temporary APP No. P-106360 during Q4 2020. Reporting for APP No. P-101704 and the UIC permit is performed separately; however, some information pertains to multiple permits and is reported accordingly.

PTF Operations and Monitoring Quarterly Reporting

■ Section 2.7.4.4.1 – Graphical Representation of Injected and Recovered Volumes

The daily cumulative injection and recovery volumes, and the daily percent recovery to injection volume values are provided in tabular and graphical format in Attachment 1. Throughout Q4 2020, the extracted volume has consistently exceeded the injected volume by 10 percent or more and the monthly average injection rate remained below the 240 gallons per minute limit.

■ Section 2.7.4.4.2 – Graphical Representation of the Hydraulic Gradient in the PTF

The daily average head measurement values for the observation wells and recovery wells are provided in tabular and graphical format in Attachment 2. The hydraulic gradient has been maintained with a greater than 1-foot differential as a daily average for all paired wells throughout Q4 2020.

■ Section 2.7.4.4.3 – Monthly Potentiometric Surface Maps of the PTF

The monthly potentiometric surface maps of the PTF are provided in Attachment 3. In accordance with requirements, the monthly potentiometric surface maps present the monthly high, low, and average water levels at each PTF observation and recovery well. The potentiometric surface maps represent a theoretical high, low, and average condition that groups the highest, lowest, and average water levels measured at each well together. As demonstrated by the data provided in Attachments 1, 2, 4, 5, and 8 of this report, groundwater flow was inwards towards the PTF throughout the quarter. The potentiometric surface maps depict short-term water elevation variability over the course of the monitoring period resulting from the significant flow reduction immediately following the shutdown of the SX/EW plant in October, and regular operational changes required to accomplish rinsing during the ongoing rinsing demonstration.

■ Section 2.7.4.4.4 – Lower Basin Fill Unit Bulk Electrical Conductivity Contour Maps

Bulk electrical conductivity (EC) values are provided in tabular and graphical format in Attachment 4. No bulk EC alert level (AL) exceedances occurred during Q4 2020.

¹ Note that the Temporary APP expired in December 2020, and future monitoring of discharging facilities covered by the Temporary APP has been incorporated into the amended APP No. P-101704.

- **Section 2.7.4.4.5 – Summary of Pressure Transducer and Fracture Gradient Readings**
Monthly maximum, minimum, and average injection pressures are provided in Attachment 5. There were no exceedances of the fracture gradient during Q4 2020.
- **Section 2.7.4.4.6 – Graphical Representation of Fluid Electrical Conductivity Readings from Injection and Observations Wells**
Fluid EC values are provided in tabular and graphical format in Attachment 6. There were no days where observation well measurements were greater than injection well measurements during Q4 2020 while copper production through the SX/EW plant continued. As expected, and authorized by the permit, fluid EC in the observation wells did exceed those in the injection wells once rinsing only operations began on October 29, 2020, following the cessation of SX/EW plant operations on October 28, 2020.
- **Section 2.7.4.4.7 – Description of Deviations from Standard Sampling Protocols**
There were no deviations from standard sampling protocols during the Q4 2020 monitoring event.
- **Section 2.7.4.4.8 – Summary of all Exceedances of ALs, Aquifer Quality Limits (AQL), Action Levels, Discharge Limits, or Operational Limits**
There were no exceedances of AQLs, action levels, discharge limits, or operational limits during Q4 2020. The following AL exceedances occurred during Q4 2020:

Well	Alert Level Exceedance
M57R-O	Sulfate ²
M58-O	Gross alpha
M59-O	Magnesium Sulfate Total dissolved solids Gross alpha Adjusted gross alpha Radium 226+228
M60-O	Gross alpha
MW-01-O	Gross alpha

Refer to Attachment 10 for additional details on the groundwater monitoring AL exceedances.

- **Section 2.7.4.4.9 – Time versus Concentration Plots of Select Groundwater Parameters**
Plots of select quarterly monitoring parameter concentrations over time for point of compliance (POC), supplemental, and operational monitoring wells, and replacement monitoring well M57R-O are provided in Attachment 7. Please note that a limited number of historical outliers have been eliminated from the graphs for visual representation but are maintained in the data set.
- **Section 2.7.4.4.10 – Area Groundwater Elevation Contour Maps**
Monthly groundwater elevation contour maps are provided in Attachment 8.
- **Section 2.7.4.4.11 – Discharge Characterization of the Underground Workings**
Characterization of underground workings discharge was performed on November 19, 2020. The results of the characterization event were submitted under separate cover to ADEQ on December 31, 2020.

² Well M57R-O is not regulated under the Temporary APP. It did, however, exceed its proposed Temporary APP sulfate AL submitted to ADEQ for review on March 27, 2020.

- **Section 2.7.4.4.12 – Fissure Inspection Summary**
Routine visual observations found no ground surface cracks or earth fissures in or around the PTF.
- **Section 2.7.4.4.13 – Table of Monitor Well Details and Water Levels**
Well details and water levels during Q4 2020 are provided in Attachment 9.
- **Section 2.7.4.4.14 – Summary of All Monitoring Wells Replaced**
No monitoring wells were replaced during Q4 2020. Well M57R-O was constructed during Q1 2019 and is intended to replace well M57-O. Ambient monitoring for M57R-O has been completed and proposed ALs and AQLs were submitted to ADEQ for review on March 27, 2020. No correspondence regarding the proposal ALs and AQLs has been received to date.
- **Section 2.7.4.4.15 – Groundwater Sampling Results for POC and Best Available Demonstrated Control Technology (BADCT) Wells**
The results of Q4 2020 groundwater monitoring of the POC and BADCT wells are presented in Attachment 10.
- **Section 2.7.1 – Self-Monitoring Report Forms**
The completed SMRFs for Q4 2020 has been submitted to the on-line MyDEQ portal.
- **Table 4.1-8 – Well Bore Annular EC**
The results of the Q4 2020 well bore annular EC monitoring are provided in Attachment 11. Annular EC readings have remained approximately constant or increased slightly in 8 of the 11 monitored wells since monitoring began in Q3 2018. Annular EC has decreased in wells O-04, O-06, and WB-01 during that same time. The results of the monitoring indicate the absence of injected fluid at annular conductivity device locations.
- **Section 2.7.4.4.16 – Copies of Reports Submitted to the USEPA for the UIC**
As required, a copy of the quarterly monitoring report submitted to the USEPA for UIC Permit No. R9UIC-AZ3-FY11-1 is being submitted under a separate cover.

Please contact me at (520) 316-3710 with any questions regarding the content of this document.

Sincerely,
Florence Copper Inc.



Brent Berg
General Manager

cc: Maribeth Greenslade, ADEQ

FLORENCE COPPER INC.

1575 W. Hunt Highway, Florence, Arizona 85132 USA florencecopper.com

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Enclosures:

Figure 1 – Groundwater Monitoring Area

Figure 2 – PTF Wellfield

Attachment 1 – Graphical Representation of Injected and Recovered Volumes

Attachment 2 – Graphical Representation of the Hydraulic Gradient in the Production Test Facility

Attachment 3 – Monthly Potentiometric Surface Maps of the Production Test Facility

Attachment 4 – Lower Basin Fill Unit Bulk Electrical Conductivity Contour Maps

Attachment 5 – Summary of Pressure Transducer and Fracture Gradient Readings

Attachment 6 – Graphical Representation of Fluid Electrical Conductivity Readings from Injection and Observations Wells

Attachment 7 – Time versus Concentration Plots of Select Groundwater Parameters

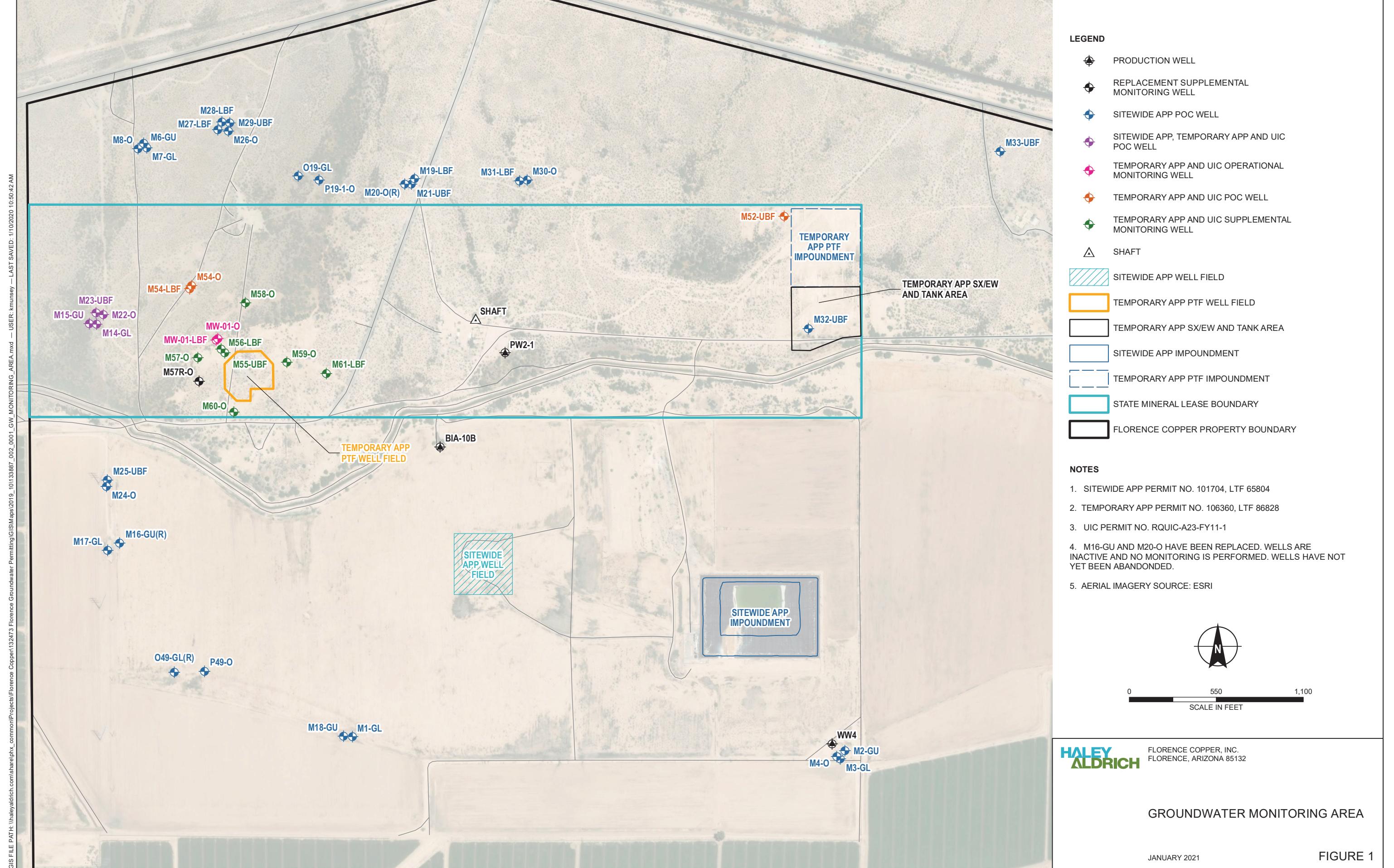
Attachment 8 – Area Groundwater Elevation Contour Maps

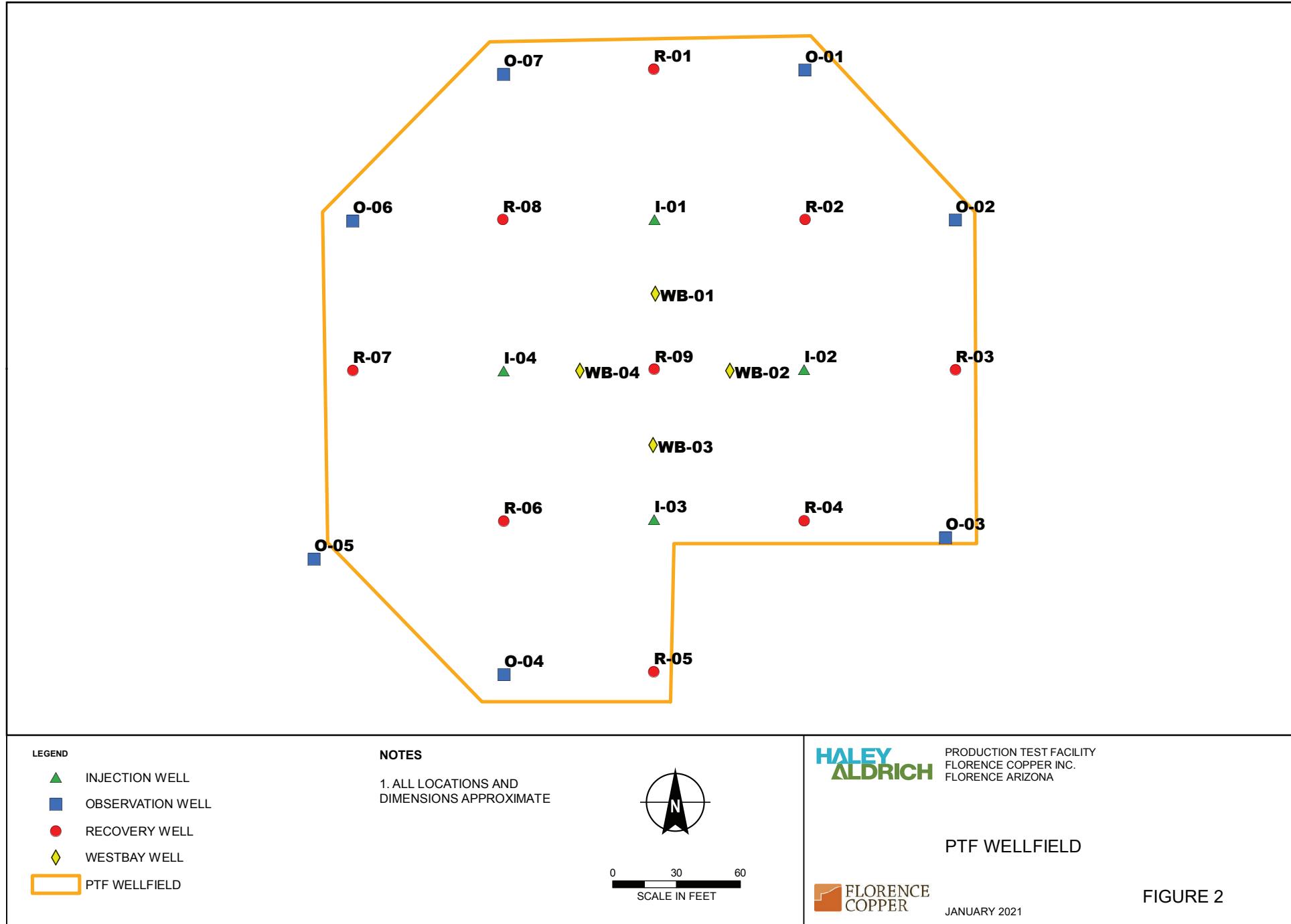
Attachment 9 – Table of Monitor Well Details and Water Levels

Attachment 10 – Groundwater Sampling Results for Point of Compliance and Best Available Demonstrated Control Technology Wells

Attachment 11 – Well Bore Annular Electrical Conductivity

FIGURES





ATTACHMENT 1

Graphical Representation of Injected and Recovered Volumes

Q4 2020 DAILY INJECTION AND RECOVERY

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VOLUMES WITH PERCENT RECOVERY

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 1. October 2020 Daily Injection and Recovery Volumes

Date	Daily Injection Volume (gallons)	Daily Recovery Volume (gallons)	Ratio PLS/Raff	% Recovery
10/1/2020	295,600	334,500	1.13	113
10/2/2020	295,500	334,800	1.13	113
10/3/2020	295,500	334,400	1.13	113
10/4/2020	295,500	334,800	1.13	113
10/5/2020	295,600	334,300	1.13	113
10/6/2020	295,400	334,600	1.13	113
10/7/2020	295,600	334,700	1.13	113
10/8/2020	295,500	334,400	1.13	113
10/9/2020	295,500	334,500	1.13	113
10/10/2020	295,500	334,600	1.13	113
10/11/2020	295,600	334,400	1.13	113
10/12/2020	295,500	334,700	1.13	113
10/13/2020	295,700	334,500	1.13	113
10/14/2020	295,600	334,400	1.13	113
10/15/2020	295,500	337,500	1.14	114
10/16/2020	295,000	335,200	1.14	114
10/17/2020	295,500	336,500	1.14	114
10/18/2020	296,300	336,400	1.14	114
10/19/2020	296,300	336,700	1.14	114
10/20/2020	296,500	336,200	1.13	113
10/21/2020	296,300	336,600	1.14	114
10/22/2020	296,400	336,300	1.13	113
10/23/2020	296,200	334,200	1.13	113
10/24/2020	296,300	334,000	1.13	113
10/25/2020	296,400	336,600	1.14	114
10/26/2020	296,400	336,000	1.13	113
10/27/2020	291,400	331,700	1.14	114
10/28/2020	151,500	170,100	1.12	112
10/29/2020	145,100	173,500	1.20	120
10/30/2020	149,300	173,700	1.16	116
10/31/2020	152,000	174,000	1.14	114
OCT Averages	276,774	314,155	1.14	114

OCT Averages	Monthly Average Injection Volume (GPM)	Monthly Average Recovery Volume (GPM)
	192	218

Notes:

% = percent

GPM = gallons per minute

PLS = pregnant leach solution

Raff = raffinate

**Q4 2020 DAILY INJECTION AND RECOVERY
VOLUMES WITH PERCENT RECOVERY**
FLORENCE COPPER INC.
FLORENCE, ARIZONA

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Table 2. November 2020 Daily Injection and Recovery Volumes

Date	Daily Injection Volume (gallons)	Daily Recovery Volume (gallons)	Ratio PLS/Raff	% Recovery
11/1/2020	153,500	173,900	1.13	113
11/2/2020	154,600	173,600	1.12	112
11/3/2020	156,100	174,400	1.12	112
11/4/2020	155,600	174,200	1.12	112
11/5/2020	155,500	174,200	1.12	112
11/6/2020	155,200	174,000	1.12	112
11/7/2020	147,200	164,200	1.12	112
11/8/2020	153,900	174,600	1.13	113
11/9/2020	155,800	173,700	1.11	111
11/10/2020	154,900	173,500	1.12	112
11/11/2020	154,800	174,500	1.13	113
11/12/2020	156,000	174,200	1.12	112
11/13/2020	156,400	173,800	1.11	111
11/14/2020	156,800	176,200	1.12	112
11/15/2020	156,600	174,400	1.11	111
11/16/2020	155,400	174,000	1.12	112
11/17/2020	155,400	175,100	1.13	113
11/18/2020	155,900	174,000	1.12	112
11/19/2020	156,500	174,000	1.11	111
11/20/2020	156,800	174,100	1.11	111
11/21/2020	156,300	174,000	1.11	111
11/22/2020	156,100	175,400	1.12	112
11/23/2020	156,200	173,800	1.11	111
11/24/2020	156,200	181,300	1.16	116
11/25/2020	155,700	175,800	1.13	113
11/26/2020	156,100	174,700	1.12	112
11/27/2020	155,600	175,200	1.13	113
11/28/2020	155,400	174,100	1.12	112
11/29/2020	155,300	173,300	1.12	112
11/30/2020	154,300	173,100	1.12	112
NOV Averages	155,337	174,177	1.12	112

NOV Averages	Monthly Average Injection Volume (GPM)	Monthly Average Recovery Volume (GPM)
	108	121

Notes:

% = percent

GPM = gallons per minute

PLS = pregnant leach solution

Raff = raffinate

**Q4 2020 DAILY INJECTION AND RECOVERY
VOLUMES WITH PERCENT RECOVERY**
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Page 3 of 3

Table 3. December 2020 Daily Injection and Recovery Volumes

Date	Daily Injection Volume (gallons)	Daily Recovery Volume (gallons)	Ratio PLS/Raff	% Recovery
12/1/2020	154,400	173,100	1.12	112
12/2/2020	154,600	173,300	1.12	112
12/3/2020	154,300	173,200	1.12	112
12/4/2020	155,000	172,900	1.12	112
12/5/2020	156,000	173,900	1.11	111
12/6/2020	156,300	175,300	1.12	112
12/7/2020	156,300	175,200	1.12	112
12/8/2020	156,500	173,400	1.11	111
12/9/2020	155,700	173,800	1.12	112
12/10/2020	155,400	172,600	1.11	111
12/11/2020	156,000	174,400	1.12	112
12/12/2020	156,200	174,300	1.12	112
12/13/2020	156,600	174,000	1.11	111
12/14/2020	155,700	174,500	1.12	112
12/15/2020	156,000	173,800	1.11	111
12/16/2020	156,100	173,900	1.11	111
12/17/2020	156,200	174,100	1.11	111
12/18/2020	156,400	173,400	1.11	111
12/19/2020	156,100	174,500	1.12	112
12/20/2020	156,000	174,200	1.12	112
12/21/2020	156,500	173,900	1.11	111
12/22/2020	156,100	174,300	1.12	112
12/23/2020	156,000	174,300	1.12	112
12/24/2020	156,000	174,000	1.12	112
12/25/2020	155,700	174,100	1.12	112
12/26/2020	155,700	174,100	1.12	112
12/27/2020	156,100	173,900	1.11	111
12/28/2020	155,700	174,400	1.12	112
12/29/2020	155,400	173,300	1.12	112
12/30/2020	155,400	174,200	1.12	112
12/31/2020	155,500	174,100	1.12	112
DEC Averages	155,803	173,948	1.12	112

DEC Averages	Monthly Average Injection Volume (GPM)	Monthly Average Recovery Volume (GPM)
	108	121

Notes:

% = percent

GPM = gallons per minute

PLS = pregnant leach solution

Raff = raffinate

Figure 1. Injection vs. Recovery Volumes - October

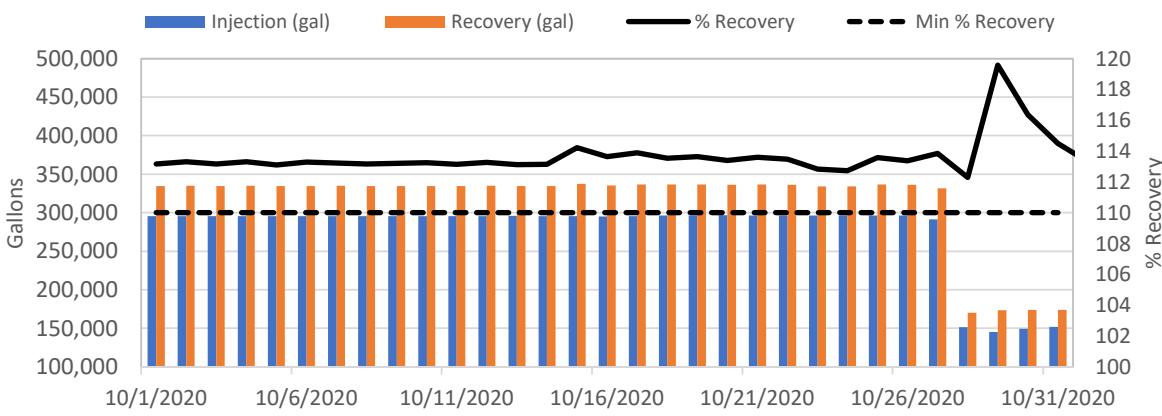


Figure 2. Injection vs. Recovery Volumes - November

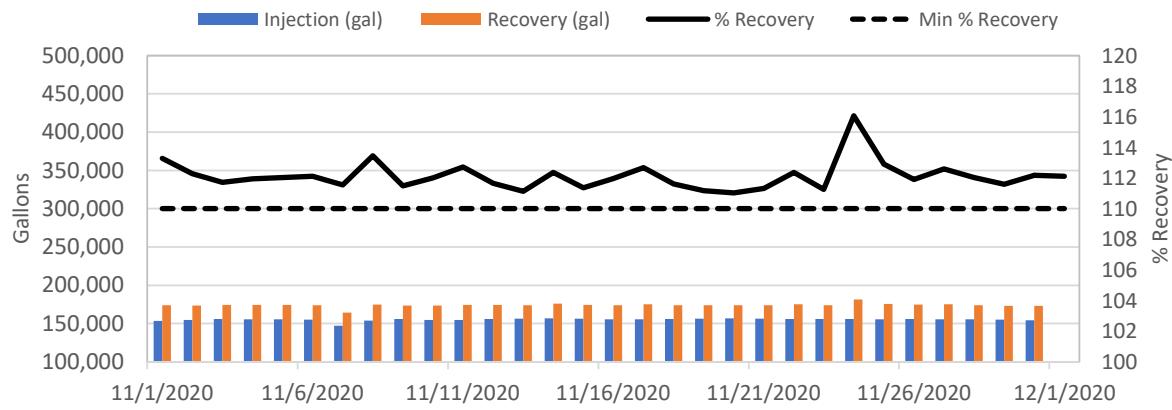
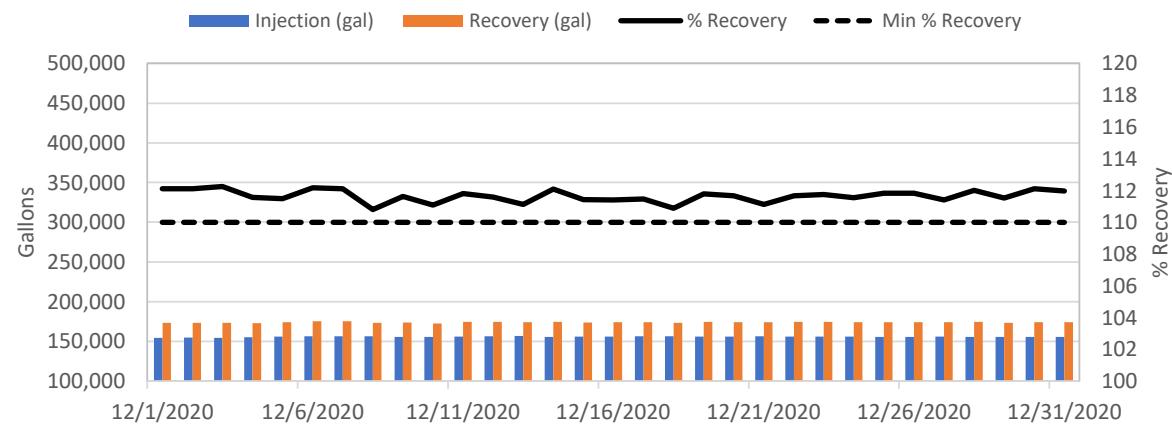


Figure 3. Injection vs. Recovery Volumes - December



ATTACHMENT 2

Graphical Representation of the Hydraulic Gradient in the Production Test Facility

Table 1. October 2020 Daily Average Water Level Elevations

Date	R-01	O-01	O-07	R-02	O-01	O-02	R-03	O-02	O-03	R-04	O-03	R-05	O-04	R-06	O-04	O-05	R-07	O-05	O-06	R-08	O-06	O-07	R-09
10/1/2020	1216.25	1239.74	1235.92	1139.25	1239.74	1234.11	1109.86	1234.11	1233.41	1140.16	1233.41	1146.00	1233.83	1112.68	1233.83	1235.30	1231.40	1235.30	1236.51	NA	1236.51	1235.92	1141.05
10/2/2020	1216.52	1240.81	1236.52	1153.58	1240.81	1235.11	1108.80	1235.11	1234.77	1140.39	1234.77	1171.53	1235.30	1119.61	1235.30	1236.44	1232.78	1236.44	1237.15	1213.88	1237.15	1236.52	1142.16
10/3/2020	1217.84	1242.61	1238.12	1161.14	1242.61	1236.99	1109.40	1236.99	1237.07	1141.14	1237.07	1183.51	1237.58	1123.31	1237.58	1238.38	1234.54	1238.38	1238.73	1215.69	1238.73	1238.12	1143.42
10/4/2020	1219.79	1244.60	1240.18	1163.06	1244.60	1239.02	1109.79	1239.02	1239.33	1141.53	1239.33	1185.49	1239.90	1124.90	1239.90	1240.60	1236.69	1240.60	1240.86	1217.80	1240.86	1240.18	1144.79
10/5/2020	1221.04	1245.67	1242.08	1148.54	1245.67	1239.93	1108.76	1239.93	1239.76	1134.64	1239.76	1141.83	1243.08	1125.70	1243.08	1243.86	1239.87	1243.86	1243.21	1213.02	1243.21	1242.08	1146.15
10/6/2020	1222.10	1247.04	1239.63	1170.38	1247.04	1241.35	1109.45	1241.35	1241.20	1139.61	1241.20	1157.18	1242.70	1127.92	1242.70	1243.53	1239.63	1243.53	1243.46	1218.24	1243.46	1242.87	1146.98
10/7/2020	1222.82	1247.97	1243.15	1186.46	1247.97	1242.41	1110.60	1242.41	1241.96	1143.78	1241.96	1151.10	1242.10	1124.39	1242.10	1243.15	1239.30	1243.15	1243.59	1222.22	1243.59	1243.15	1146.71
10/8/2020	1223.64	1248.92	1243.81	1190.88	1248.92	1243.33	1111.05	1243.33	1242.76	1145.21	1242.76	1140.05	1242.56	1121.78	1242.56	1243.67	1239.82	1243.67	1244.22	1224.32	1244.22	1243.81	1147.62
10/9/2020	1225.40	1249.59	1244.48	1185.06	1249.59	1244.01	1111.16	1244.01	1243.50	1145.27	1243.50	1140.34	1243.13	1117.48	1243.13	1244.28	1240.48	1244.28	1245.00	1225.22	1245.00	1244.48	1146.59
10/10/2020	1227.12	1250.20	1245.08	1179.04	1250.20	1244.77	1111.20	1244.77	1244.12	1145.31	1244.12	1140.46	NA	1112.51	NA	1244.85	1241.04	1244.85	1245.66	1226.10	1245.66	1245.08	1146.07
10/11/2020	1227.25	1250.59	1245.44	1180.37	1250.59	1245.09	1111.21	1245.09	1244.48	1145.27	1244.48	1140.87	NA	1112.40	NA	1245.18	1241.36	1245.18	1246.00	1226.42	1246.00	1245.44	1146.03
10/12/2020	1227.19	1250.23	1245.27	1178.65	1250.23	1244.76	1110.85	1244.76	1244.32	1142.60	1244.32	1159.73	1243.53	1112.62	1243.53	1245.21	1241.36	1245.21	1245.92	1223.57	1245.92	1245.27	1146.94
10/13/2020	1227.17	1250.19	1245.20	1178.47	1250.19	1244.74	1110.74	1244.74	1244.33	1142.55	1244.33	1159.00	1243.61	1112.55	1243.61	1245.25	1241.36	1245.25	1245.88	1223.58	1245.88	1245.20	1146.93
10/14/2020	1227.79	1250.86	1245.88	1179.01	1250.86	1245.33	1110.81	1245.33	1244.99	1142.65	1244.99	1159.09	1244.37	1112.59	1244.37	1245.96	1242.07	1245.96	1246.58	1224.27	1246.58	1245.88	1147.25
10/15/2020	1228.25	1251.28	1246.31	1179.37	1251.28	1246.46	1110.88	1246.46	1245.36	1142.75	1245.36	1158.93	1244.88	1112.56	1244.88	1246.46	1242.58	1246.46	1247.06	1224.79	1247.06	1246.31	1147.49
10/16/2020	1228.57	1251.28	1246.49	1179.47	1251.28	1246.29	1111.42	1246.29	1245.40	1147.83	1245.40	1159.16	1244.48	1112.51	1244.48	1246.53	1242.77	1246.53	1247.28	1229.97	1247.28	1246.49	1147.44
10/17/2020	1229.13	1251.75	1246.98	1180.28	1251.75	1246.68	1111.98	1246.68	1246.15	1150.25	1246.15	1159.85	1245.53	1112.56	1245.53	1247.13	1243.40	1247.13	1247.81	1232.70	1247.81	1246.98	1147.79
10/18/2020	1229.53	1252.15	1247.30	1180.67	1252.15	1247.07	1112.04	1247.07	1245.39	1150.28	1245.39	1159.85	1245.98	1112.59	1245.98	1247.57	1243.83	1247.57	1248.20	1233.20	1248.20	1247.30	1148.12
10/19/2020	1229.59	1252.18	1247.35	1180.60	1252.18	1247.10	1112.00	1247.10	1243.89	1150.23	1243.89	1159.54	1246.02	1112.54	1246.02	1247.63	1243.91	1247.63	1248.26	1233.37	1248.26	1247.35	1148.14
10/20/2020	1229.44	1252.08	1247.14	1180.53	1252.08	1247.10	1112.01	1247.10	1245.78	1150.24	1245.78	1159.20	1245.70	1112.57	1245.70	1247.29	1243.68	1247.29	1248.06	1233.25	1248.06	1247.14	1148.59
10/21/2020	1228.42	1250.95	1246.00	1179.24	1250.95	1245.93	1111.74	1245.93	1244.47	1149.96	1244.47	1157.25	1244.25	1112.64	1244.25	1246.12	1242.56	1246.12	1246.98	1232.26	1246.98	1246.00	1148.25
10/22/2020	1227.66	1250.40	1245.27	1178.81	1250.40	1245.53	1111.88	1245.53	1244.57	1151.64	1244.57	1156.78	1243.87	1114.12	1243.87	1245.43	1241.84	1245.43	1246.25	1228.61	1246.25	1245.27	1147.53
10/23/2020	1227.53	1251.87	1246.80	1139.63	1251.87	1245.77	1109.95	1245.77	1231.92	1136.66	1231.92	1110.06	1243.45	1112.90	1243.45	1245.70	1242.77	1242.77	1204.74	1247.22	1246.80	NA	
10/24/2020	1226.19	1249.54	1244.31	1161.61	1249.54	1244.10	1110.69	1244.10	1241.89	1146.61	1241.89	1139.66</											

Table 2. November 2020 Daily Average Water Level Elevations

Date	R-01	O-01	O-07	R-02	O-01	O-02	R-03	O-02	O-03	R-04	O-03	R-05	O-04	R-06	O-04	O-05	R-07	O-05	O-06	R-08	O-06	O-07	R-09
11/1/2020	1228.67	1248.16	1244.18	1221.29	1248.16	1244.57	1128.66	1244.57	1242.31	1166.99	1242.31	1196.13	1244.24	1196.20	1244.24	1244.87	1242.31	1244.87	1244.81	1234.44	1244.81	1244.18	1214.66
11/2/2020	1229.42	1248.16	1244.18	1222.03	1249.07	1245.50	1128.80	1245.50	1243.46	1167.10	1243.46	1196.80	1245.43	1197.29	1245.43	1251.64	1243.23	1251.64	1245.78	1235.45	1245.78	1245.17	1215.68
11/3/2020	1229.25	1249.07	1245.17	1221.59	1248.80	1245.21	1128.85	1245.21	1242.86	1166.76	1242.86	1196.82	1244.70	1196.11	1244.70	1254.70	1242.89	1254.70	1244.67	1235.27	1244.67	1244.78	1215.20
11/4/2020	1229.08	1247.04	1243.05	1220.02	1247.04	1243.57	1128.64	1243.57	1241.10	1166.38	1241.10	1194.76	1243.00	1194.05	1243.00	1252.93	1240.20	1252.93	1244.14	1233.44	1244.14	1243.05	1213.19
11/5/2020	1228.56	1246.38	1242.41	1219.69	1246.38	1242.96	1128.23	1242.96	1240.40	1166.21	1240.40	1193.43	1242.46	1194.01	1242.46	1252.26	1239.20	1252.26	1242.01	1232.95	1242.01	1242.41	1212.47
11/6/2020	1228.71	1246.36	1242.46	1218.77	1246.36	1242.88	1128.28	1242.88	1240.18	1165.97	1240.18	1193.92	1242.36	1193.29	1242.36	1252.26	1239.37	1252.26	1242.61	1232.82	1242.61	1242.46	1212.38
11/7/2020	1229.58	1246.55	1242.60	1221.28	1246.55	1243.10	1129.56	1243.10	1239.96	1169.24	1239.96	1199.23	1242.00	1198.08	1242.00	1252.22	1239.55	1252.22	1242.25	1234.24	1242.25	1242.60	1215.18
11/8/2020	1228.11	1245.49	1241.63	1216.44	1245.49	1242.01	1128.36	1242.01	1238.96	1165.38	1238.96	1193.58	1241.18	1190.56	1241.18	1251.21	1238.72	1251.21	1241.35	1231.98	1241.35	1241.63	1212.08
11/9/2020	1227.72	1245.63	1240.66	1218.88	1245.63	1242.19	1127.79	1242.19	1239.29	1166.39	1239.29	1191.32	1241.81	1194.77	1241.81	1251.66	1238.80	1251.66	1241.54	1233.03	1241.54	1240.66	1212.25
11/10/2020	1227.83	1245.49	NA	1217.54	1245.49	1242.06	1128.12	1242.06	1239.32	1165.81	1239.32	1192.96	1241.90	1192.60	1241.90	1251.70	1238.99	1251.70	1241.61	1232.56	1241.61	NA	1211.94
11/11/2020	1227.59	1245.26	1242.64	1216.89	1245.26	1241.83	1128.04	1241.83	1238.98	1165.52	1238.98	1192.54	1241.50	1191.81	1241.50	1251.34	1238.60	1251.34	1241.32	1232.16	1241.32	1242.64	1211.65
11/12/2020	1226.58	1245.26	1241.18	1215.09	1245.26	1240.52	1127.83	1240.52	1237.37	1165.24	1237.37	1190.94	1239.71	1190.46	1239.71	1249.72	1237.14	1249.72	1239.95	1231.10	1239.95	1241.18	1210.48
11/13/2020	1225.26	NA	1239.94	1214.22	NA	1238.98	1127.43	1238.98	1235.48	1165.00	1235.48	1166.70	1238.52	1187.78	1238.52	1248.62	1236.04	1248.62	1238.78	1230.39	1238.78	1239.94	1209.02
11/14/2020	1225.15	NA	1239.71	1212.95	NA	1239.14	1127.13	1239.14	1235.73	1164.67	1235.73	1186.67	1238.19	1168.65	1238.19	1248.06	1233.97	1248.06	1238.23	1231.02	1238.23	1239.71	1208.96
11/15/2020	1225.44	NA	1239.62	1211.10	NA	1238.94	1128.07	1238.94	1235.50	1163.75	1235.50	1192.23	1237.79	1186.14	1237.79	1247.84	1235.70	1247.84	1238.20	1228.88	1238.20	1239.62	1208.71
11/16/2020	1224.04	1235.19	1238.20	1212.11	1235.19	1237.92	1127.45	1237.92	1236.24	1165.41	1236.24	1189.10	1237.86	1190.27	1237.86	1247.78	1235.10	1247.78	1237.46	1229.80	1237.46	1238.20	1207.72
11/17/2020	1223.36	1235.04	1237.53	1210.29	1235.04	1237.39	1127.18	1237.39	1235.46	1164.79	1235.46	1188.35	1237.34	1188.35	1237.34	1247.22	1234.48	1247.22	1236.70	1228.91	1236.70	1237.53	1207.22
11/18/2020	1223.53	1234.90	1237.73	1209.99	1234.90	1237.22	1127.34	1237.22	1235.89	1164.73	1235.89	1189.36	1237.67	1188.59	1237.67	1247.60	1234.85	1247.60	1236.89	1229.06	1236.89	1237.73	1206.94
11/19/2020	1224.33	1236.26	1238.29	1210.90	1236.26	1237.98	1127.38	1237.98	1235.24	1164.46	1235.24	1189.26	1237.50	1186.85	1237.50	1247.72	1235.08	1247.72	1237.28	1228.90	1237.28	1238.29	1207.61
11/20/2020	1225.89	1238.44	1239.82	1214.65	1238.44	1239.75	1127.20	1239.75	1236.58	1165.36	1236.58	1188.68	1239.01	1188.80	1239.01	1249.22	1236.47	1249.22	1238.92	1230.97	1238.92	1239.82	1209.42
11/21/2020	1226.86	1239.40	1240.80	1215.33	1239.40	1240.68	1127.38	1240.68	1237.68	1165.42	1237.68	1189.62	1240.27	1192.75	1240.27	1250.32	1237.41	1250.32	1239.99	1231.87	1239.99	1240.80	1210.35
11/22/2020	1227.31	1239.80	1241.27	1215.60	1239.80	1241.10	1127.24	1241.10	1238.12	1165.48	1238.12	1189.43	1240.87	1193.23	1240.87	1250.85	1237.87	1250.85	1240.51	1232.40	1240.51	1241.27	1210.82
11/23/2020	1229.18	1240.55	1242.91	1212.96	1240.55	1241.54	1128.26	1241.54	1238.00	1164.16	1238.00	1196.26	1243.04	1190.96	1243.04	1253.01	1240.42	1253.01	1242.53	1234.06	1242.53	1242.91	1211.44
11/24/2020	1229.80	1241.32	1244.01	1221.38	1241.32	1242.09	1127.4647	1242.09	1239.15	1165.58	1239.15	1192.72											

Table 3. December 2020 Daily Average Water Level Elevations

Date	R-01	O-01	O-07	R-02	O-01	O-02	R-03	O-02	O-03	R-04	O-03	R-05	O-04	R-06	O-04	O-05	R-07	O-05	O-06	R-08	O-06	O-07	R-09
12/1/2020	1232.25	1244.30	1245.51	1228.64	1244.30	1245.43	1129.37	1245.43	1242.32	1166.75	1242.32	1197.13	1245.35	1209.34	1245.35	1255.14	1242.75	1255.14	1245.04	1238.12	1245.04	1245.51	1213.96
12/2/2020	1232.27	1244.70	1245.39	1228.78	1244.70	1246.39	1129.25	1246.39	1242.29	1166.61	1242.29	1196.63	1244.86	1209.15	1244.86	1254.76	1242.49	1254.76	1244.85	1237.78	1244.85	1245.39	1213.95
12/3/2020	1231.95	1244.43	1245.15	1228.51	1244.43	1246.07	1129.11	1246.07	1241.89	1166.52	1241.89	1196.20	1244.67	1209.24	1244.67	1254.46	1242.15	1254.46	1244.59	1237.49	1244.59	1245.15	1213.65
12/4/2020	1231.44	1243.34	1244.84	1227.45	1243.34	1245.38	1129.05	1245.38	1242.25	1166.33	1242.25	1197.86	1245.21	1210.07	1245.21	1254.58	1242.07	1254.58	1244.26	1236.49	1244.26	1244.84	1213.99
12/5/2020	1231.16	1243.07	1244.81	1227.99	1243.07	1245.13	1128.56	1245.13	1242.51	1166.63	1242.51	1194.32	1244.94	1215.66	1244.94	1254.71	1241.92	1254.71	1244.20	1236.75	1244.20	1244.81	1214.14
12/6/2020	1231.19	1242.85	1244.64	1226.24	1242.85	1244.89	1128.95	1244.89	1242.26	1165.43	1242.26	1196.43	1244.61	1209.07	1244.61	1254.51	1241.94	1254.51	1244.03	1235.57	1244.03	1244.64	1213.79
12/7/2020	1231.38	1244.66	1244.87	1230.32	1244.66	1246.62	1128.98	1246.62	1244.68	1167.02	1244.68	1195.99	1244.39	1214.58	1244.39	1254.11	1241.13	1254.11	1243.80	1233.54	1243.80	1244.87	1215.77
12/8/2020	1231.96	1245.48	1245.40	1229.99	1245.48	1247.38	1129.65	1247.38	1245.84	1166.65	1245.84	1198.88	1244.90	1209.05	1244.90	1254.51	1241.62	1254.51	1244.51	1232.68	1244.51	1245.40	1216.64
12/9/2020	1233.59	1247.27	1247.11	1232.15	1247.27	1249.09	1129.75	1249.09	1247.74	1167.36	1247.74	1199.53	1247.01	1215.35	1247.01	1256.39	1243.34	1256.39	1246.37	1234.65	1246.37	1247.11	1218.25
12/10/2020	1234.63	1247.86	1248.25	1232.35	1247.86	1249.55	1130.08	1249.55	1248.22	1167.34	1248.22	1201.22	1248.28	1213.25	1248.28	1250.19	1244.84	1250.19	1247.76	1236.31	1247.76	1248.25	1219.62
12/11/2020	1235.03	1247.81	1248.66	1231.23	1247.81	1249.38	1130.26	1249.38	1247.55	1166.84	1247.55	1202.47	1248.98	1212.73	1248.98	1249.36	1245.62	1249.36	1248.40	1236.58	1248.40	1248.66	1220.14
12/12/2020	1235.52	1248.49	1249.02	1231.75	1248.49	1249.86	1130.36	1249.86	1248.15	1167.06	1248.15	1202.95	1249.45	1213.41	1249.45	1249.83	1246.09	1249.83	1248.84	1236.99	1248.84	1249.02	1220.64
12/13/2020	1236.01	1249.18	1249.25	1232.76	1249.18	1250.38	1130.42	1250.38	1248.64	1167.43	1248.64	1203.28	1249.91	1214.51	1249.91	1250.31	1246.51	1250.31	1249.32	1237.77	1249.32	1249.25	1221.22
12/14/2020	1236.10	1249.52	1249.44	1233.01	1249.52	1250.56	1130.50	1250.56	1248.66	1167.53	1248.66	1203.35	1250.13	1214.54	1250.13	1250.45	1246.60	1250.45	1249.48	1237.94	1249.48	1249.44	1221.32
12/15/2020	1236.26	1249.81	1249.56	1233.34	1249.81	1250.73	1130.55	1250.73	1248.91	1167.63	1248.91	1203.64	1250.28	1214.75	1250.28	1250.62	1246.79	1250.62	1249.62	1238.16	1249.62	1249.56	1221.48
12/16/2020	1236.27	1250.11	1249.51	1233.63	1250.11	1250.80	1130.56	1250.80	1248.88	1167.96	1248.88	1203.34	1250.05	1214.86	1250.05	1250.60	1246.76	1250.60	1249.61	1238.26	1249.61	1249.51	1221.57
12/17/2020	1236.00	1250.25	1249.52	1235.15	1250.25	1250.79	1130.05	1250.79	1248.95	1169.13	1248.95	1200.57	1250.11	1217.45	1250.11	1250.59	1246.50	1250.59	1249.62	1238.98	1249.62	1249.52	1221.71
12/18/2020	1236.56	1250.55	1249.93	1233.42	1250.55	1250.95	1130.79	1250.95	1249.08	1167.80	1249.08	1204.45	1243.85	1214.29	1243.85	1250.74	1247.03	1250.74	1249.80	1238.20	1249.80	1249.93	1221.84
12/19/2020	1236.43	1250.73	1249.98	1233.41	1250.73	1250.95	1130.63	1250.95	1249.12	1167.89	1249.12	1203.48	1240.30	1214.73	1240.30	1250.75	1246.97	1250.75	1249.81	1238.37	1249.81	1249.98	1221.91
12/20/2020	1236.44	1250.86	1249.96	1233.47	1250.86	1250.93	1130.62	1250.93	1248.94	1168.08	1248.94	1203.72	1240.33	1215.00	1240.33	1250.73	1246.96	1250.73	1249.81	1238.43	1249.81	1249.96	1221.89
12/21/2020	1236.51	1251.01	1249.96	1233.46	1251.01	1250.93	1130.76	1250.93	1249.01	1168.25	1249.01	1204.28	1240.37	1214.75	1240.37	1250.73	1246.97	1250.73	1249.78	1238.26	1249.78	1249.96	1221.90
12/22/2020	1236.62	1251.14	1250.08	1230.10	1251.14	1250.94	1130.66	1250.94	1249.10	1167.81	1249.10	1203.95	1240.38	1209.80	1240.38	1250.80	1247.10	1250.80	1249.98	1237.20	1249.98	1250.08	1221.98
12/23/2020	1236.74	1251.58	1250.27	1234.07	1251.58	1251.25	1130.64	1251.25	1249.37	1168.11	1249.37	1203.64	1240.66	1215.35	1240.66	1251.07	1247.29	1251.07	1250.15	1238.85	1250.15	1250.27	1222.14
12/24/2020	1237.02	1251.83	1250.46	1233.98	1251.83	1251.42	1130.79	1251.42															

Hydraulic Gradient - Daily Average Water Level Elevations - Observation and Recovery Wells

Figure 1a. Q4 2020 Water Levels

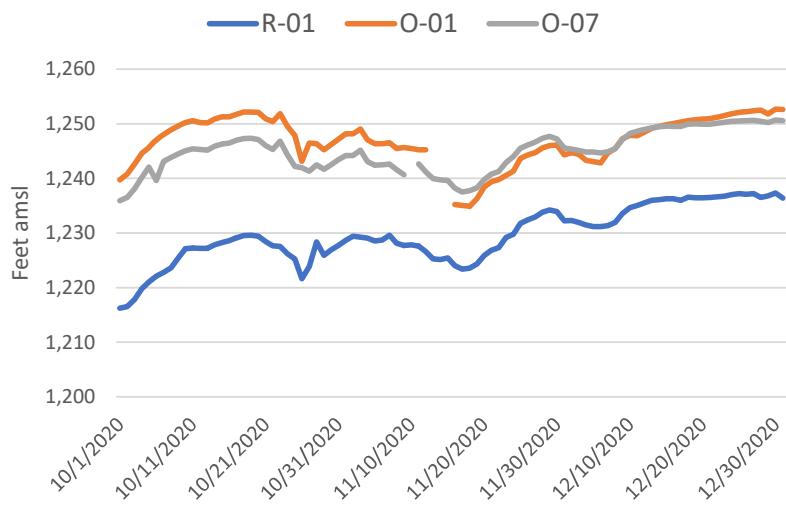


Figure 1b. Q4 2020 Water Levels

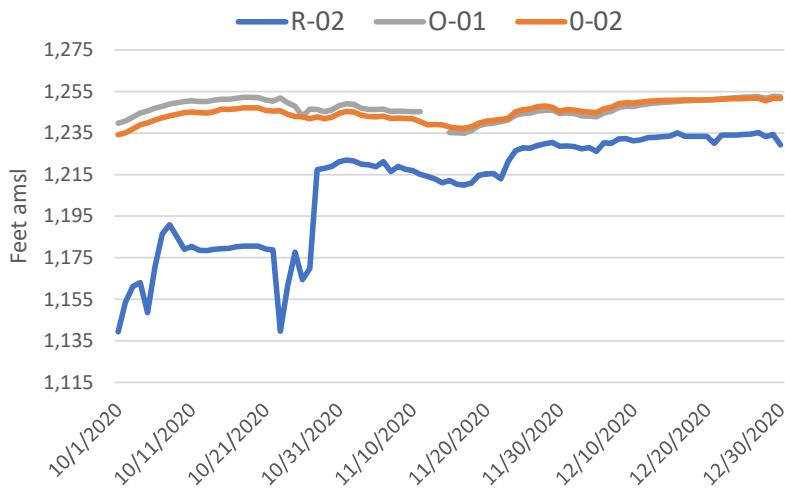


Figure 1c. Q4 2020 Water Levels

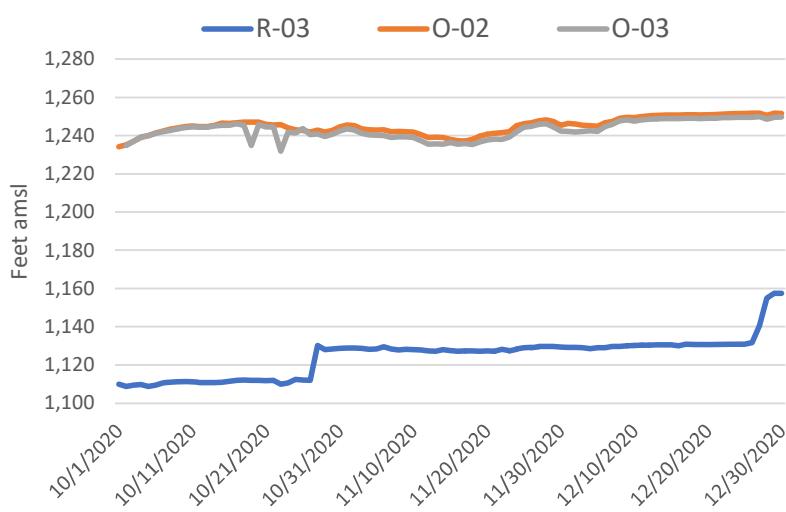
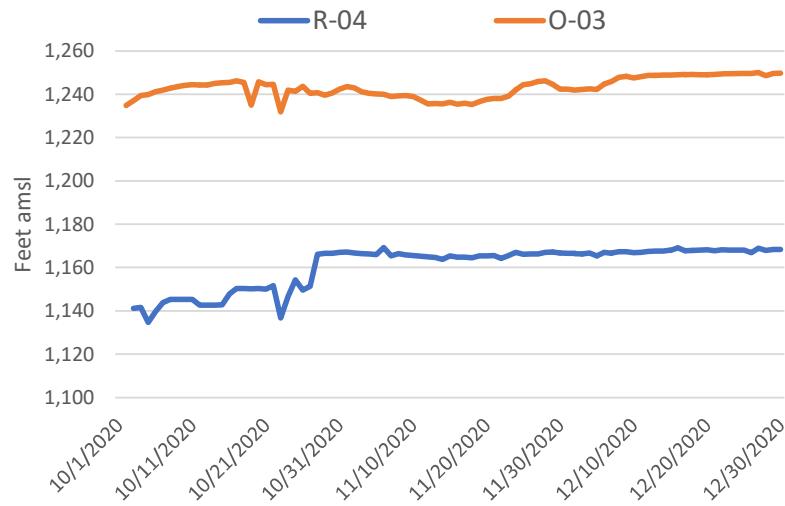


Figure 1d. Q4 2020 Water Levels



Notes:

Refer to the preceding Daily Average Water Level Elevations Tables (Tables 1 - 3) for details on missing data points.

Hydraulic Gradient - Daily Average Water Level Elevations - Observation and Recovery Wells

Figure 1e. Q4 2020 Water Levels

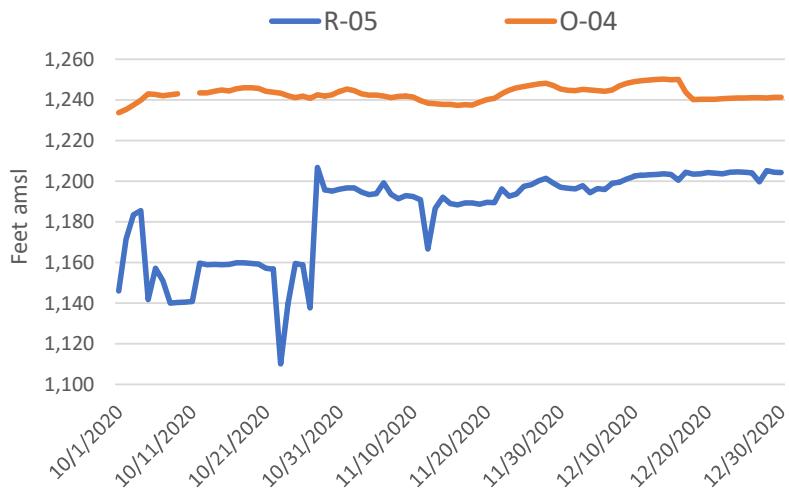


Figure 1f. Q4 2020 Water Levels

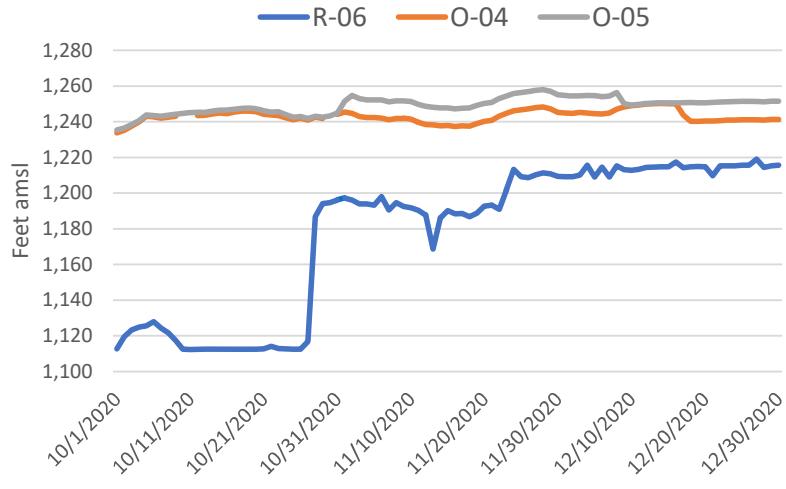


Figure 1g. Q4 2020 Water Levels

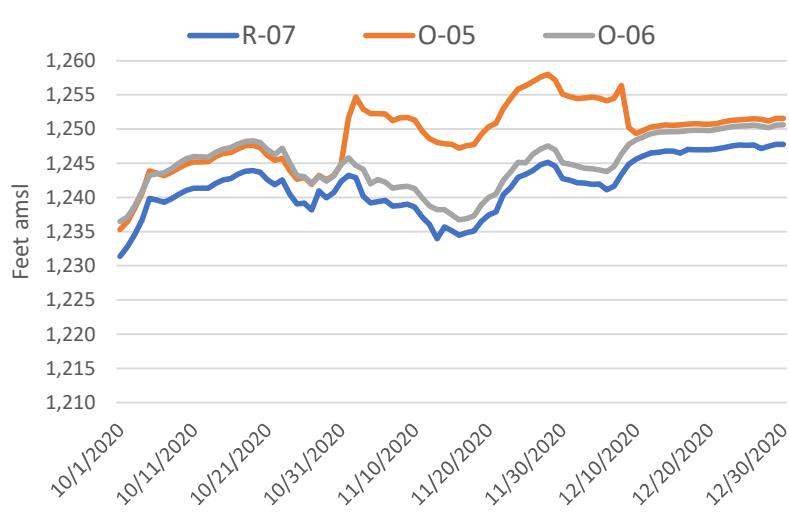
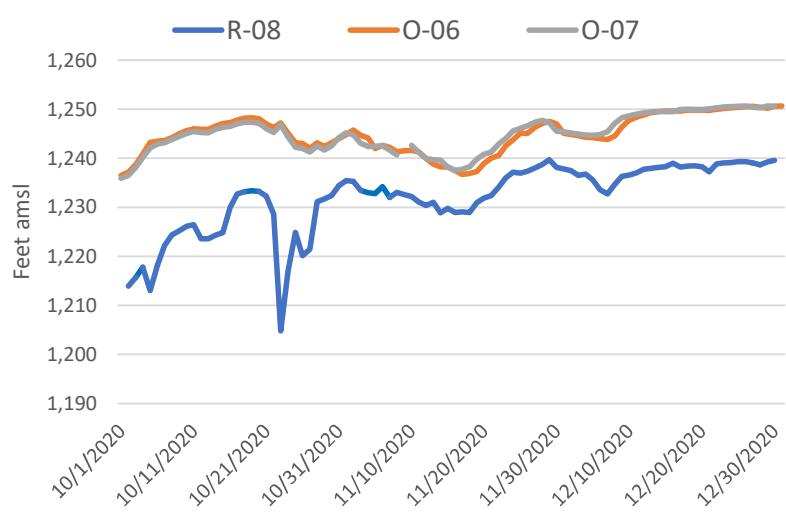


Figure 1h. Q4 2020 Water Levels



Notes:

Refer to the preceding Daily Average Water Level Elevations Tables (Tables 1 - 3) for details on missing data points.

Q4 2020 DAILY HYDRAULIC GRADIENT FOR RECOVERY WELL PAIRINGS

FLORENCE COPPER INC.

FLORENCE, ARIZONA

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Table 4. October 2020 Daily Hydraulic Gradient for Recovery Well Pairings

Date	R-01		R-02		R-03		R-04	R-05	R-06		R-07		R-08		All Gradients>1 foot?
	O-01	O-07	O-01	O-02	O-02	O-03	O-03	O-04	O-04	O-05	O-05	O-06	O-06	O-07	
10/1/2020	23.49	19.67	100.48	94.85	124.25	123.55	93.24	87.83	121.15	122.63	3.91	5.11	NA	NA	Yes
10/2/2020	24.29	20.00	87.23	81.53	126.31	125.97	94.38	63.77	115.69	116.83	3.66	4.37	23.27	22.64	Yes
10/3/2020	24.77	20.28	81.47	75.85	127.59	127.67	95.93	54.07	114.27	115.07	3.84	4.19	23.04	22.43	Yes
10/4/2020	24.81	20.38	81.54	75.96	129.24	129.54	97.80	54.41	115.00	115.70	3.91	4.17	23.06	22.38	Yes
10/5/2020	24.63	21.04	97.13	91.38	131.17	131.00	105.12	101.25	117.37	118.15	3.99	3.35	30.19	29.06	Yes
10/6/2020	24.94	20.77	76.66	70.96	131.90	131.75	101.59	85.52	114.79	115.62	3.91	3.84	25.23	24.63	Yes
10/7/2020	25.15	20.33	61.51	55.96	131.81	131.35	98.18	91.00	117.71	118.76	3.85	4.29	21.36	20.93	Yes
10/8/2020	25.28	20.18	58.04	52.45	132.28	131.70	97.55	102.51	120.78	121.88	3.85	4.40	19.90	19.49	Yes
10/9/2020	24.19	19.08	64.53	58.95	132.85	132.34	98.23	102.79	125.65	126.80	3.80	4.52	19.78	19.26	Yes
10/10/2020	23.08	17.96	71.16	65.73	133.57	132.92	98.81	NA	NA	132.34	3.81	4.62	19.56	18.98	Yes
10/11/2020	23.34	18.19	70.22	64.72	133.88	133.27	99.21	NA	NA	132.78	3.82	4.63	19.58	19.02	Yes
10/12/2020	23.04	18.08	71.59	66.11	133.91	133.47	101.72	83.79	130.91	132.59	3.85	4.55	22.34	21.70	Yes
10/13/2020	23.02	18.03	71.72	66.27	134.00	133.59	101.79	84.61	131.06	132.70	3.88	4.51	22.29	21.62	Yes
10/14/2020	23.06	18.08	71.85	66.33	134.52	134.18	102.34	85.28	131.79	133.38	3.89	4.51	22.31	21.61	Yes
10/15/2020	23.04	18.06	71.91	67.09	135.58	134.48	102.61	85.95	132.32	133.91	3.88	4.48	22.27	21.52	Yes
10/16/2020	22.71	17.92	71.81	66.82	134.87	133.98	97.57	85.32	131.97	134.02	3.76	4.51	17.31	16.52	Yes
10/17/2020	22.62	17.85	71.47	66.40	134.70	134.17	95.90	85.68	132.97	134.57	3.73	4.41	15.11	14.28	Yes
10/18/2020	22.62	17.77	71.48	66.41	135.03	133.35	95.11	86.13	133.39	134.98	3.74	4.38	15.00	14.10	Yes
10/19/2020	22.58	17.76	71.58	66.50	135.11	122.89	84.66	86.47	133.47	135.08	3.71	4.35	14.89	13.98	Yes
10/20/2020	22.64	17.70	71.55	66.57	135.09	133.77	95.54	86.50	133.13	134.72	3.61	4.38	14.81	13.89	Yes
10/21/2020	22.54	17.58	71.71	66.68	134.18	132.73	94.51	86.99	131.60	133.48	3.56	4.42	14.72	13.74	Yes
10/22/2020	22.74	17.62	71.59	66.72	133.65	132.69	92.92	87.09	129.75	131.30	3.59	4.41	17.64	16.67	Yes
10/23/2020	24.34	19.27	112.24	106.14	135.82	121.97	95.26	133.39	130.55	132.80	3.13	4.65	42.48	42.06	Yes
10/24/2020	23.35	18.12	87.93	82.49	133.41	131.20	95.28	102.52	129.49	131.27	3.44	4.58	28.06	27.27	Yes
10/25/2020	22.65	16.97	70.28	65.40	130.54	128.80	87.04	81.66	128.68	130.13	3.61	4.11	18.28	17.32	Yes
10/26/2020	21.49	20.35	78.75	78.38	130.60	131.55	94.13	83.14	129.36	130.34	3.77	3.86	22.90	21.87	Yes
10/27/2020	22.64	17.46	76.67	72.05	129.82	128.43	89.09	103.23	124.11	125.13	3.74	3.90	20.68	19.90	Yes
10/28/2020	18.01	14.11	29.03	25.54	112.72	110.61	74.64	35.82	55.75	56.40	2.27	2.19	12.00	11.35	Yes
10/29/2020	19.34	15.76	27.23	23.82	113.82	111.51	73.02	46.19	47.85	48.47	2.62	2.47	10.76	10.04	Yes
10/30/2020	19.31	15.63	27.17	23.72	114.42	112.33	74.09	47.40	47.91	48.56	2.57	2.46	10.73	10.10	Yes
10/31/2020	19.50	15.73	26.92	23.40	115.22	113.21	74.86	47.67	47.88	48.44	2.55	2.49	10.42	9.87	Yes

Notes:

All gradient values are in feet and calculated by subtracting the recovery well groundwater elevation from the paired observation well groundwater elevation.

Groundwater elevations are presented in Tables 1 through 3.

All measurements in elevation above mean sea level.

NA or NM = Not measured or otherwise not available

Not Data were available for the following dates/wells:

October 1: R-08 down for maintenance

October 10-11: O-04 down for piping repairs

Q4 2020 DAILY HYDRAULIC GRADIENT FOR RECOVERY WELL PAIRINGS

FLORENCE COPPER INC.

FLORENCE, ARIZONA

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Table 5. November 2020 Daily Hydraulic Gradient for Recovery Well Pairings

Date	R-01		R-02		R-03		R-04	R-05	R-06		R-07		R-08		All Gradients>1 foot?
	O-01	O-07	O-01	O-02	O-02	O-03	O-03	O-04	O-04	O-05	O-05	O-06	O-06	O-07	
11/1/2020	19.49	15.52	26.86	23.28	115.91	113.65	75.33	48.11	48.04	48.66	2.56	2.50	10.37	9.74	Yes
11/2/2020	19.65	15.75	27.04	23.47	116.70	114.66	76.36	48.62	48.13	54.34	8.40	2.54	10.33	9.73	Yes
11/3/2020	19.55	15.53	27.21	23.62	116.35	112.25	74.34	47.88	48.60	58.59	11.81	1.78	9.40	9.52	Yes
11/4/2020	17.96	13.97	27.02	23.55	114.93	112.46	74.72	48.24	48.95	58.88	12.73	3.94	10.70	9.61	Yes
11/5/2020	17.82	13.86	26.68	23.27	114.73	112.17	74.19	49.03	48.45	58.25	13.06	2.81	9.06	9.46	Yes
11/6/2020	17.65	13.75	27.59	24.11	114.60	111.90	74.21	48.44	49.07	58.97	12.89	3.24	9.79	9.64	Yes
11/7/2020	16.97	13.02	25.27	21.82	113.54	110.40	70.72	42.77	43.92	54.14	12.67	2.70	8.01	8.36	Yes
11/8/2020	17.38	13.51	29.05	25.57	113.65	110.60	73.58	47.60	50.61	60.65	12.49	2.63	9.37	9.65	Yes
11/9/2020	17.90	12.93	26.75	23.31	114.39	111.50	72.90	50.50	47.04	56.88	12.85	2.74	8.51	7.63	Yes
11/10/2020	17.65	NA	27.94	24.52	113.94	111.20	73.50	48.94	49.30	59.10	12.71	2.62	9.05	NA	Yes
11/11/2020	17.67	15.05	28.37	24.94	113.79	110.94	73.46	48.96	49.70	59.53	12.74	2.72	9.16	10.48	Yes
11/12/2020	18.67	14.60	30.16	25.43	112.69	109.54	72.14	48.77	49.25	59.27	12.58	2.82	8.86	10.09	Yes
11/13/2020	NA	14.68	NA	24.76	111.55	108.05	70.48	71.82	50.74	60.84	12.58	2.74	8.39	9.55	Yes
11/14/2020	NA	14.56	NA	26.19	112.01	108.60	71.06	51.52	69.54	79.41	14.09	4.26	7.21	8.69	Yes
11/15/2020	NA	14.17	NA	27.84	110.86	107.42	71.75	45.56	51.65	61.70	12.14	2.50	9.32	10.74	Yes
11/16/2020	11.15	14.16	23.08	25.81	110.47	108.79	70.83	48.76	47.59	57.51	12.68	2.36	7.66	8.40	Yes
11/17/2020	11.68	14.17	24.75	27.10	110.22	108.28	70.67	48.99	48.98	58.87	12.74	2.22	7.79	8.62	Yes
11/18/2020	11.36	14.20	24.90	27.23	109.88	108.55	71.17	48.31	49.08	59.01	12.75	2.04	7.83	8.67	Yes
11/19/2020	11.93	13.96	25.36	27.08	110.60	107.86	70.78	48.24	50.65	60.87	12.65	2.21	8.38	9.39	Yes
11/20/2020	12.55	13.93	23.79	25.10	112.55	109.38	71.22	50.33	50.21	60.42	12.75	2.45	7.95	8.85	Yes
11/21/2020	12.54	13.94	24.07	25.35	113.30	110.30	72.26	50.65	47.52	57.57	12.91	2.58	8.12	8.93	Yes
11/22/2020	12.48	13.95	24.19	25.49	113.85	110.88	72.64	51.44	47.64	57.62	12.98	2.65	8.11	8.86	Yes
11/23/2020	11.37	13.73	27.59	28.58	113.29	109.74	73.84	46.77	52.08	62.05	12.60	2.12	8.47	8.85	Yes
11/24/2020	11.52	14.21	19.94	20.71	114.63	111.69	73.58	52.07	42.85	52.55	13.06	2.31	7.77	8.04	Yes
11/25/2020	11.90	13.79	17.09	18.68	116.91	113.68	75.03	52.42	32.76	42.52	12.95	2.20	7.98	8.40	Yes
11/26/2020	11.92	13.71	16.43	18.27	117.12	115.41	78.39	49.23	37.46	47.09	12.99	1.67	8.10	9.18	Yes
11/27/2020	11.80	13.72	17.10	19.02	117.46	115.68	78.66	48.99	38.71	48.31	13.03	2.39	8.93	9.27	Yes
11/28/2020	11.76	13.49	16.60	18.69	118.05	116.26	79.64	47.82	37.69	47.26	12.82	2.29	9.05	9.33	Yes
11/29/2020	11.76	13.50	16.07	18.22	118.40	116.47	79.14	46.91	36.91	46.57	12.87	2.37	8.81	9.01	Yes
11/30/2020	12.21	13.34	15.66	16.97	117.81	114.94	77.42	48.17	36.45	46.38	12.59	2.41	7.25	7.52	Yes

Notes:

All gradient values are in feet and calculated by subtracting the recovery well groundwater elevation from the paired observation well groundwater elevation.

Groundwater elevations are presented in Tables 1 through 3.

All measurements in elevation above mean sea level.

NA or NM = Not measured or otherwise not available

No data were available for the following dates/wells:

November 10: O-07 down for re-development

November 13-15: O-01 down for redevelopment

Q4 2020 DAILY HYDRAULIC GRADIENT FOR RECOVERY WELL PAIRINGS

FLORENCE COPPER INC.

FLORENCE, ARIZONA

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Table 6. December 2020 Daily Hydraulic Gradient for Recovery Well Pairings

Date	R-01		R-02		R-03		R-04	R-05	R-06		R-07		R-08		All Gradients > 1 foot?
	O-01	O-07	O-01	O-02	O-02	O-03	O-03	O-04	O-04	O-05	O-05	O-06	O-06	O-07	
12/1/2020	12.05	13.26	15.66	16.79	116.06	112.93	75.54	48.21	36.01	45.80	12.39	2.29	6.93	7.39	Yes
12/2/2020	12.43	13.12	15.92	17.61	117.14	113.04	75.68	48.23	35.71	45.61	12.27	2.35	7.07	7.60	Yes
12/3/2020	12.48	13.20	15.92	17.56	116.96	112.78	75.37	48.46	35.43	45.22	12.31	2.44	7.10	7.66	Yes
12/4/2020	11.89	13.39	15.88	17.93	116.33	113.20	75.93	47.36	35.14	44.51	12.50	2.19	7.77	8.35	Yes
12/5/2020	11.90	13.64	15.08	17.14	116.57	113.95	75.88	50.63	29.28	39.05	12.79	2.28	7.45	8.06	Yes
12/6/2020	11.66	13.45	16.61	18.65	115.94	113.32	76.83	48.18	35.55	45.45	12.58	2.09	8.46	9.07	Yes
12/7/2020	13.28	13.49	14.34	16.30	117.64	115.70	77.66	48.40	29.81	39.53	12.98	2.67	10.26	11.33	Yes
12/8/2020	13.52	13.44	15.49	17.39	117.73	116.19	79.19	46.02	35.85	45.46	12.89	2.89	11.84	12.72	Yes
12/9/2020	13.68	13.52	15.11	16.93	119.34	117.99	80.38	47.48	31.66	41.04	13.05	3.03	11.72	12.45	Yes
12/10/2020	13.23	13.62	15.51	17.20	119.46	118.14	80.88	47.06	35.04	36.94	5.35	2.92	11.45	11.94	Yes
12/11/2020	12.78	13.63	16.58	18.15	119.12	117.29	80.71	46.51	36.25	36.63	3.74	2.78	11.82	12.08	Yes
12/12/2020	12.97	13.50	16.74	18.11	119.50	117.79	81.09	46.50	36.04	36.42	3.74	2.75	11.85	12.03	Yes
12/13/2020	13.18	13.25	16.43	17.62	119.96	118.22	81.22	46.63	35.39	35.80	3.80	2.81	11.55	11.49	Yes
12/14/2020	13.42	13.34	16.51	17.55	120.06	118.16	81.13	46.78	35.59	35.91	3.85	2.88	11.54	11.50	Yes
12/15/2020	13.55	13.30	16.47	17.40	120.19	118.36	81.28	46.64	35.53	35.87	3.83	2.83	11.46	11.40	Yes
12/16/2020	13.84	13.24	16.47	17.17	120.24	118.32	80.92	46.71	35.19	35.74	3.83	2.85	11.35	11.24	Yes
12/17/2020	14.25	13.52	15.11	15.65	120.74	118.90	79.82	49.54	32.66	33.14	4.10	3.12	10.63	10.54	Yes
12/18/2020	13.99	13.37	17.13	17.53	120.16	118.29	81.28	39.40	29.56	36.45	3.71	2.77	11.60	11.73	Yes
12/19/2020	14.30	13.55	17.32	17.54	120.32	118.49	81.23	36.82	25.57	36.02	3.78	2.84	11.44	11.61	Yes
12/20/2020	14.43	13.52	17.39	17.46	120.31	118.32	80.86	36.61	25.33	35.73	3.78	2.85	11.38	11.53	Yes
12/21/2020	14.50	13.44	17.55	17.47	120.17	118.25	80.76	36.09	25.62	35.98	3.76	2.81	11.52	11.69	Yes
12/22/2020	14.52	13.45	21.04	20.84	120.28	118.44	81.29	36.43	30.58	41.00	3.70	2.88	12.78	12.88	Yes
12/23/2020	14.84	13.52	17.51	17.17	120.60	118.73	81.26	37.01	25.31	35.72	3.79	2.86	11.29	11.42	Yes
12/24/2020	14.81	13.44	17.85	17.44	120.63	118.67	81.40	36.40	25.50	35.91	3.77	2.83	11.32	11.43	Yes
12/25/2020	14.91	13.35	18.09	17.54	120.70	118.67	81.54	36.28	25.68	36.05	3.70	2.78	11.35	11.46	Yes
12/26/2020	15.13	13.48	17.91	17.24	120.78	118.77	81.52	36.67	25.45	35.80	3.77	2.84	11.20	11.31	Yes
12/27/2020	15.19	13.45	17.93	17.25	119.98	117.82	82.66	37.01	25.52	35.90	3.80	2.88	11.24	11.32	Yes
12/28/2020	15.99	13.92	17.29	16.52	111.12	109.37	81.08	41.46	22.01	32.27	4.25	3.25	11.34	11.37	Yes
12/29/2020	14.99	13.44	18.56	17.35	95.69	93.68	80.73	35.73	26.57	36.76	3.73	2.71	11.50	11.57	Yes
12/30/2020	15.36	13.37	18.36	17.41	94.22	92.05	81.23	36.75	25.91	36.18	3.76	2.82	11.35	11.44	Yes
12/31/2020	16.22	14.21	23.32	22.28	94.14	92.37	81.47	37.03	25.57	35.83	3.80	2.89	11.06	11.00	Yes

Notes:

All gradient values are in feet and calculated by subtracting the recovery well groundwater elevation from the paired observation well groundwater elevation.

Groundwater elevations are presented in Tables 1 through 3.

All measurements in elevation above mean sea level.

Hydraulic Gradient - Daily Average Water Level Elevations - Observation and Recovery Wells

Figure 1i. Hydraulic Gradient for Wells Paired with R-01

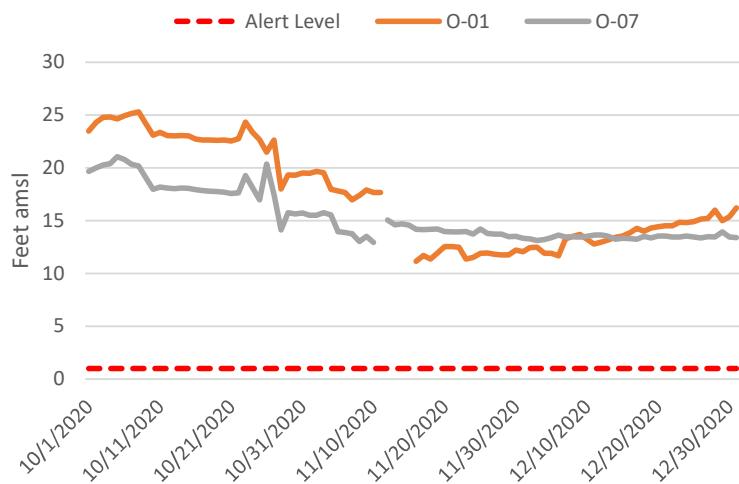


Figure 1j. Hydraulic Gradient for Wells Paired with R-02

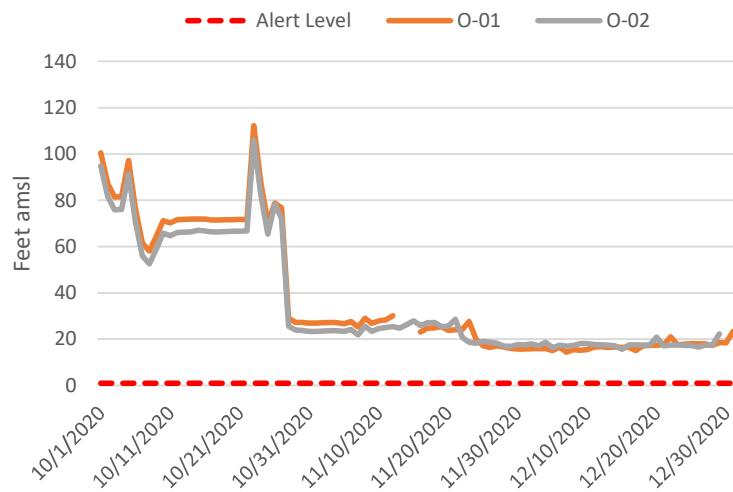


Figure 1k. Hydraulic Gradient for Wells Paired with R-03

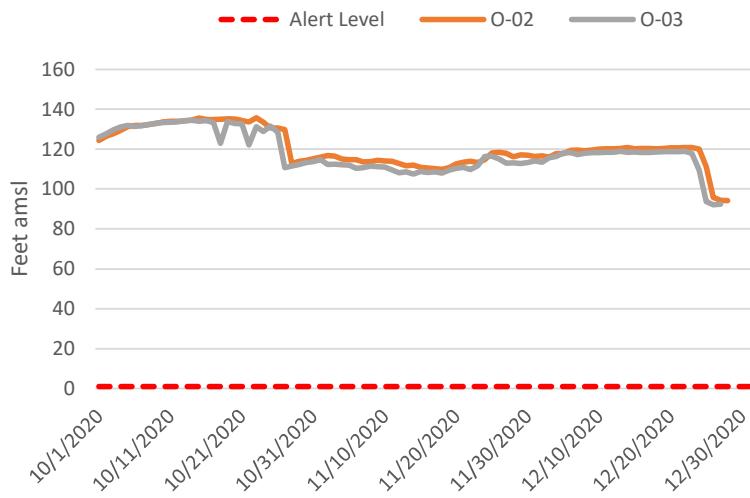


Figure 1l. Hydraulic Gradient for Wells Paired with R-04



Notes:

Refer to the preceding Daily Hydraulic Gradient for Recovery Well Pairings Tables (Tables 4 - 6) for details on missing data points.

Hydraulic Gradient - Daily Average Water Level Elevations - Observation and Recovery Wells

Figure 1m. Hydraulic Gradient for Wells Paired with R-05



Figure 1n. Hydraulic Gradient for Wells Paired with R-06

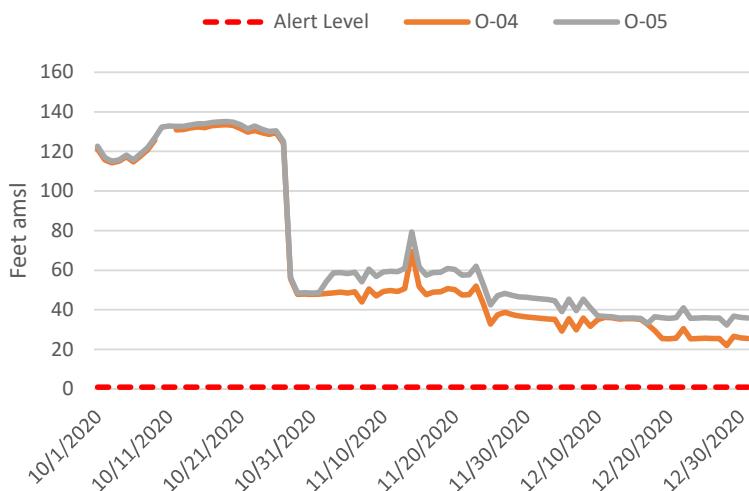


Figure 1o. Hydraulic Gradient for Wells Paired with R-07

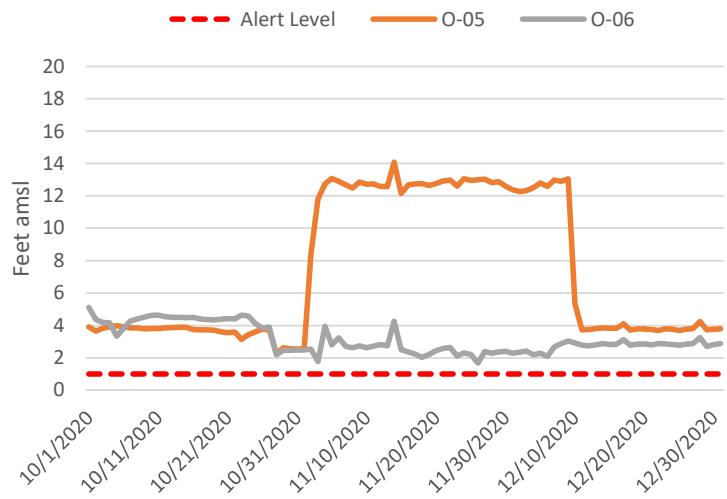
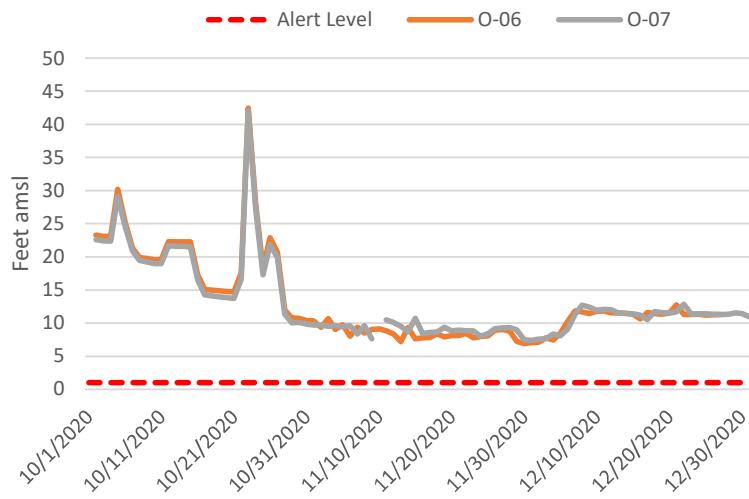


Figure 1p. Hydraulic Gradient for Wells Paired with R-08

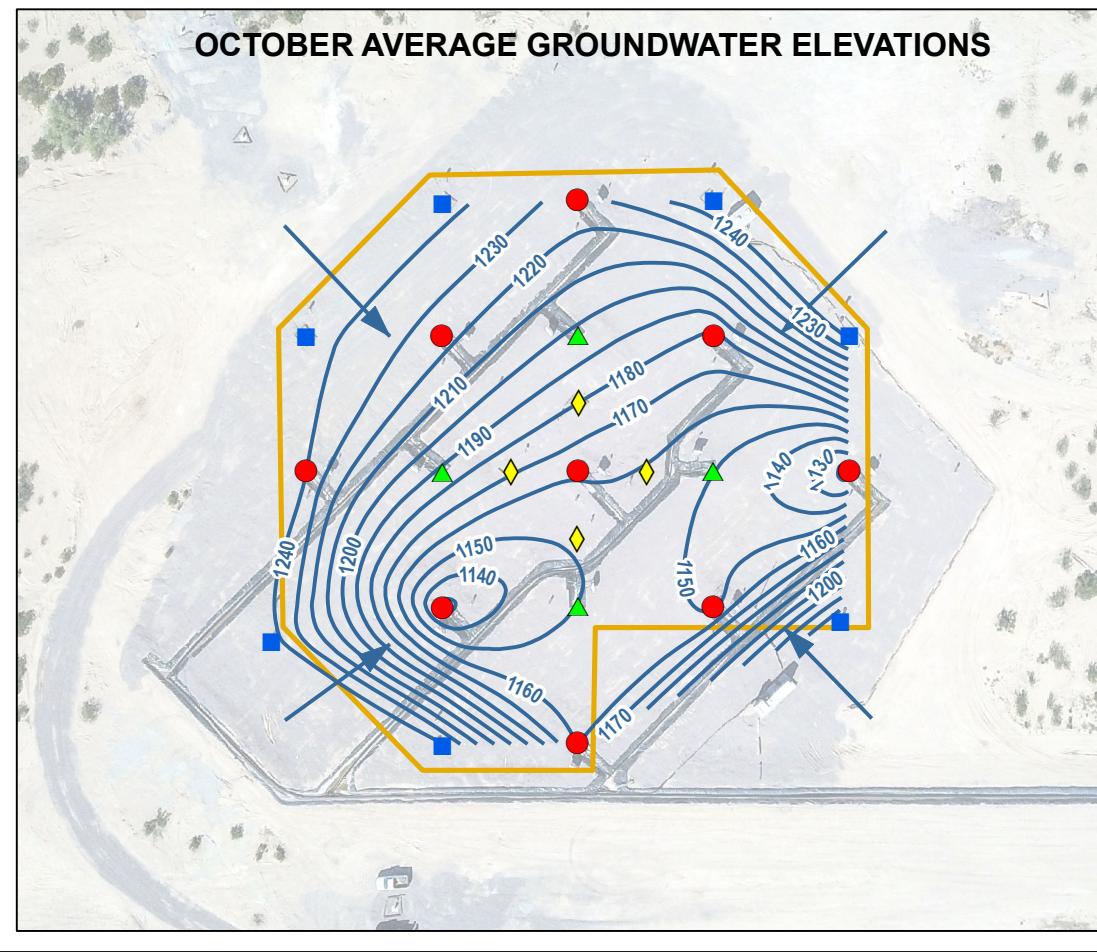
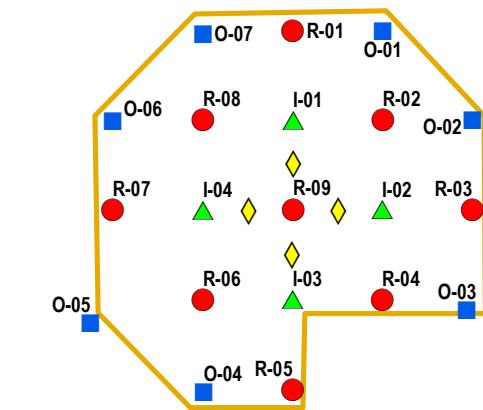
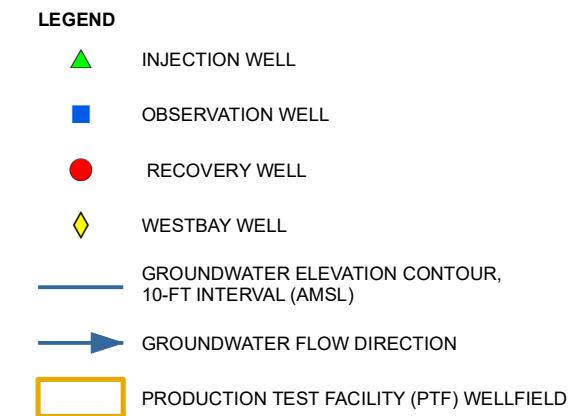
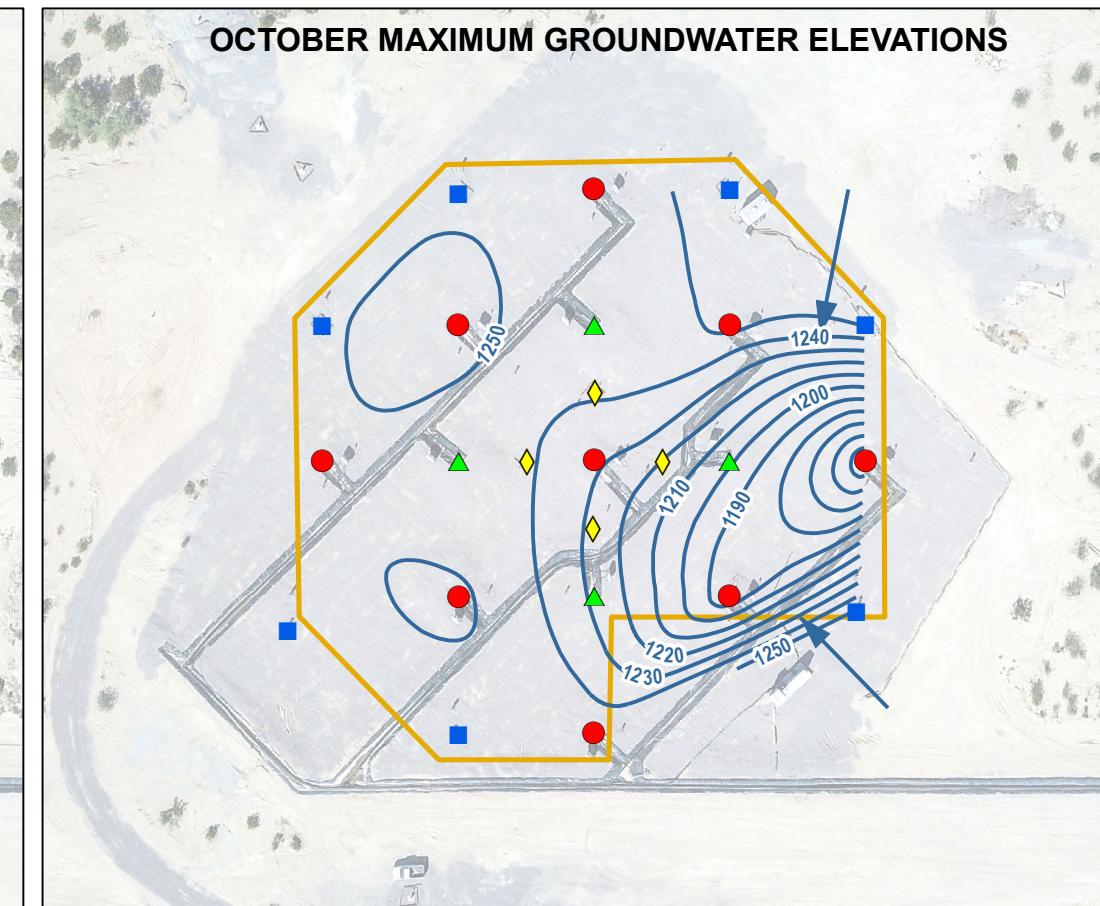
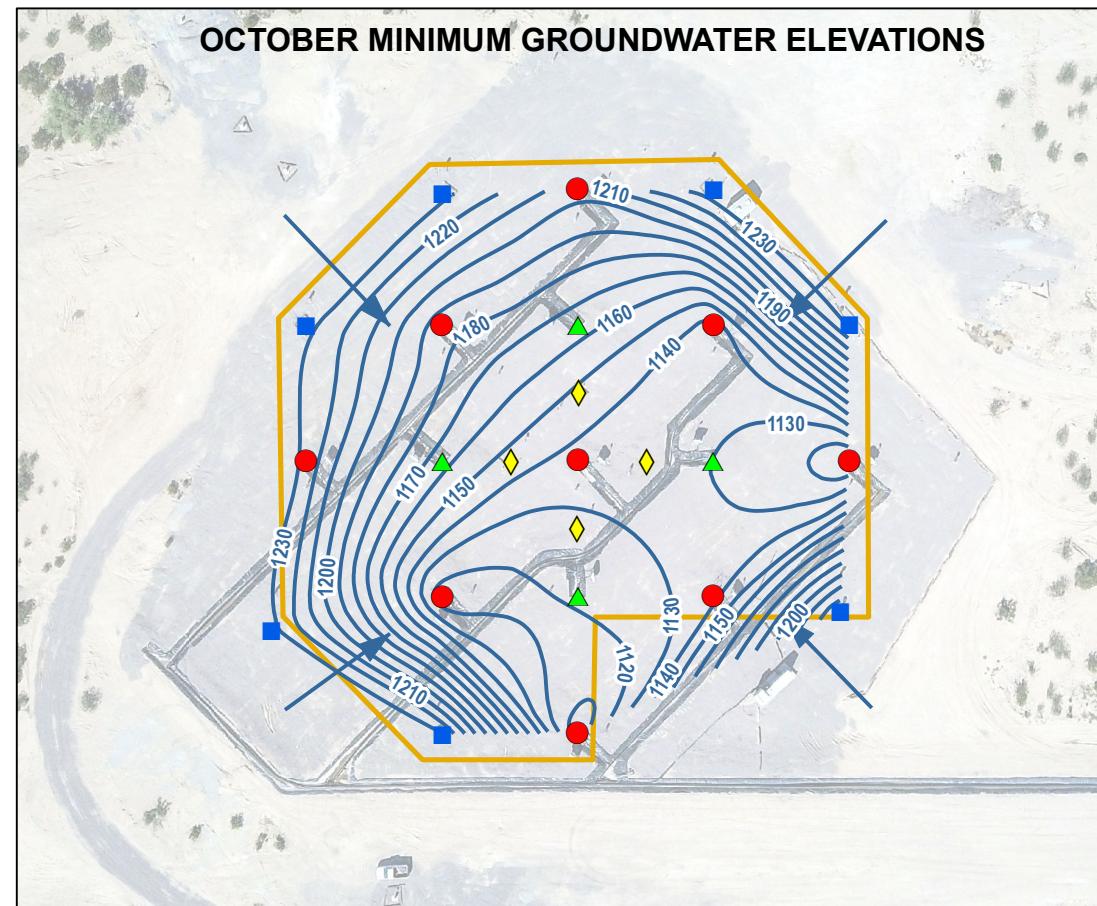


Notes:

Refer to the preceding Daily Hydraulic Gradient for Recovery Well Pairings Tables (Tables 4 - 6) for details on missing data points.

ATTACHMENT 3

**Monthly Potentiometric Surface Maps
of the Production Test Facility**



OCTOBER 2020					
WELL ID	MAX WLE DATE(S)	MAX WLE (FT AMSL)	MIN WLE DATE(S)	MIN WLE (FT AMSL)	AVG WLE (FT AMSL)
R-01	10/28/2020	1240.39	10/29/2020	1203.32	1225.35
R-02	10/28/2020	1252.89	10/24/2020	1134.55	1178.05
R-03	10/28/2020	1139.20	10/23/2020	1108.26	1113.22
R-04	10/28/2020	1182.27	10/5/2020	1133.71	1147.99
R-05	10/28/2020	1247.95	10/24/2020	1104.11	1159.60
R-06	10/28/2020	1251.69	10/11/2020	1112.24	1125.85
R-07	10/28/2020	1248.17	10/1/2020	1227.50	1240.28
R-08	10/28/2020	1255.14	10/28/2020	1184.03	1224.64
R-09	10/28/2020	1232.28	10/1/2020	1135.95	1161.82
O-01	10/28/2020	1257.14	10/1/2020	1237.51	1248.23
O-02	10/28/2020	1251.09	10/1/2020	1232.23	1243.28
O-03	10/28/2020	1251.83	10/1/2020	1230.73	1241.61
O-04	10/28/2020	1247.04	10/1/2020	1232.27	1242.50
O-05	10/19/2020	1248.10	10/1/2020	1233.22	1243.87
O-06	10/28/2020	1249.08	10/1/2020	1233.19	1244.38
O-07	10/28/2020	1249.15	10/1/2020	1232.69	1243.66

NOTES

1. ALL LOCATIONS AND DIMENSIONS APPROXIMATE.
2. AMSL = ABOVE MEAN SEA LEVEL
3. WLE = WATER LEVEL ELEVATION
4. AREAL IMAGERY SOURCE: FLORENCE COPPER INC., OCTOBER 2018



0 100 200
SCALE IN FEET

HALEY
ALDRICH

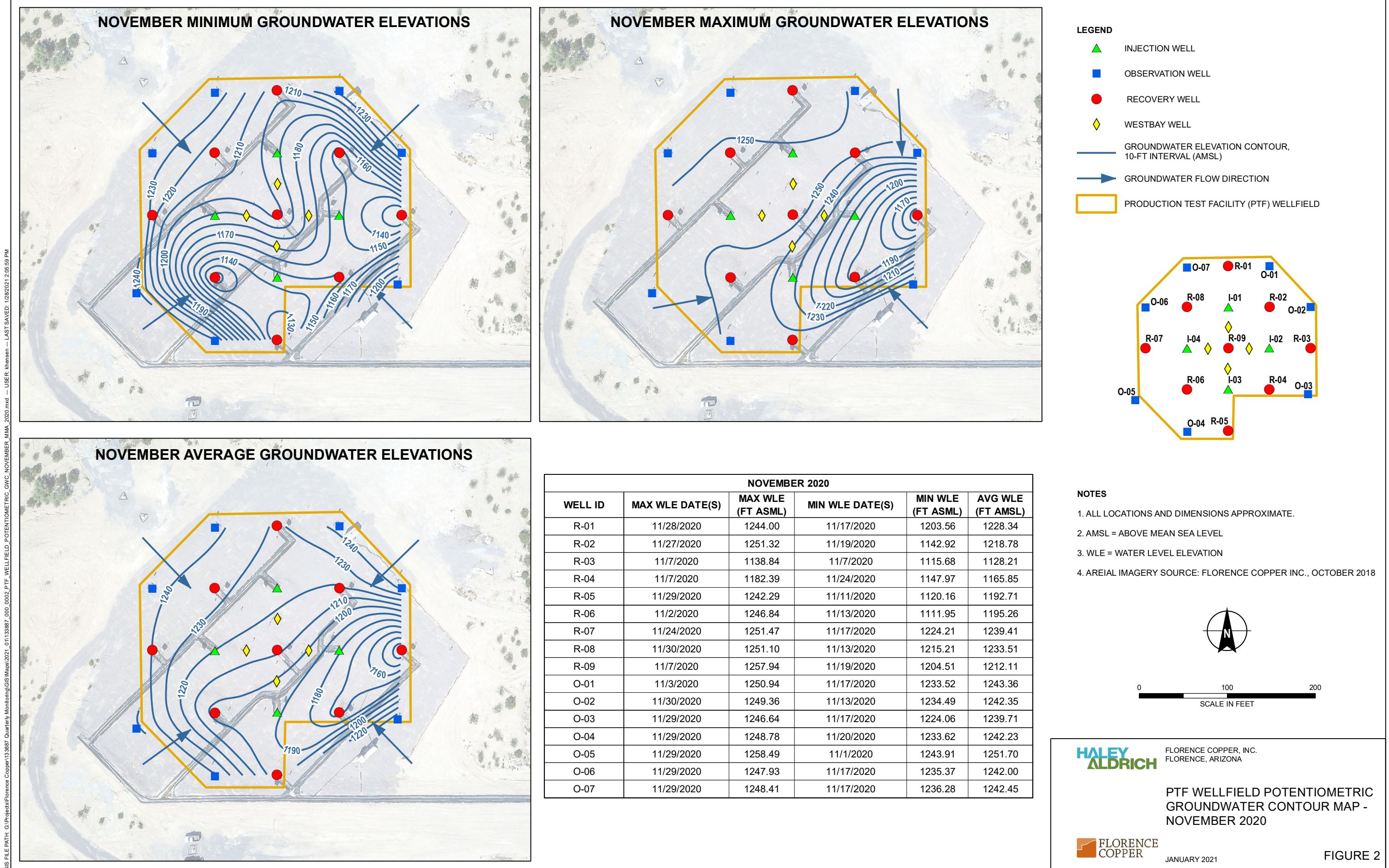
FLORENCE COPPER, INC.
FLORENCE, ARIZONA

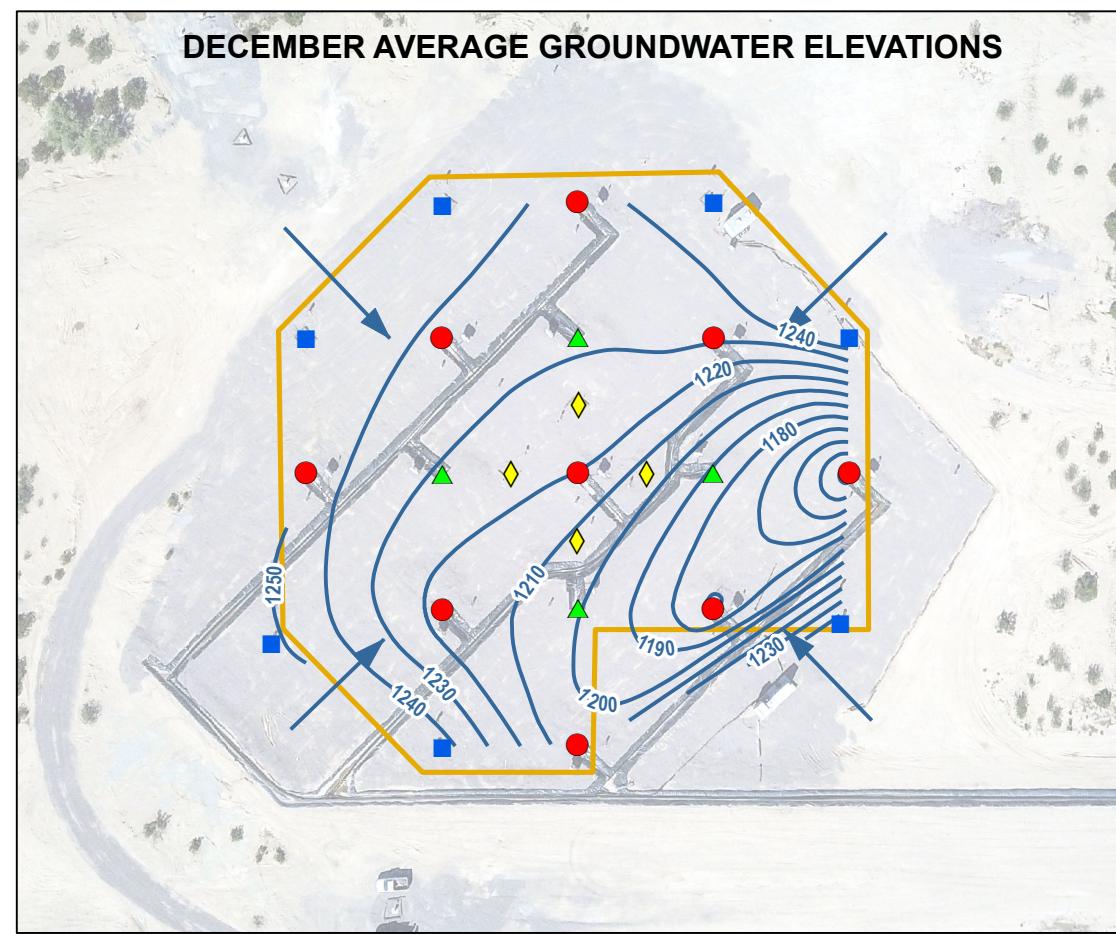
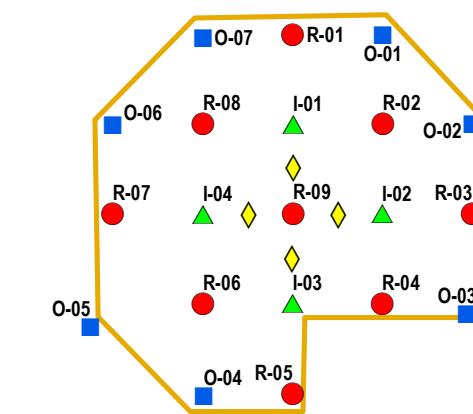
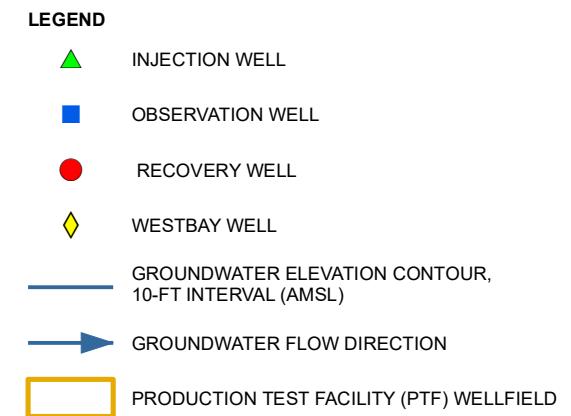
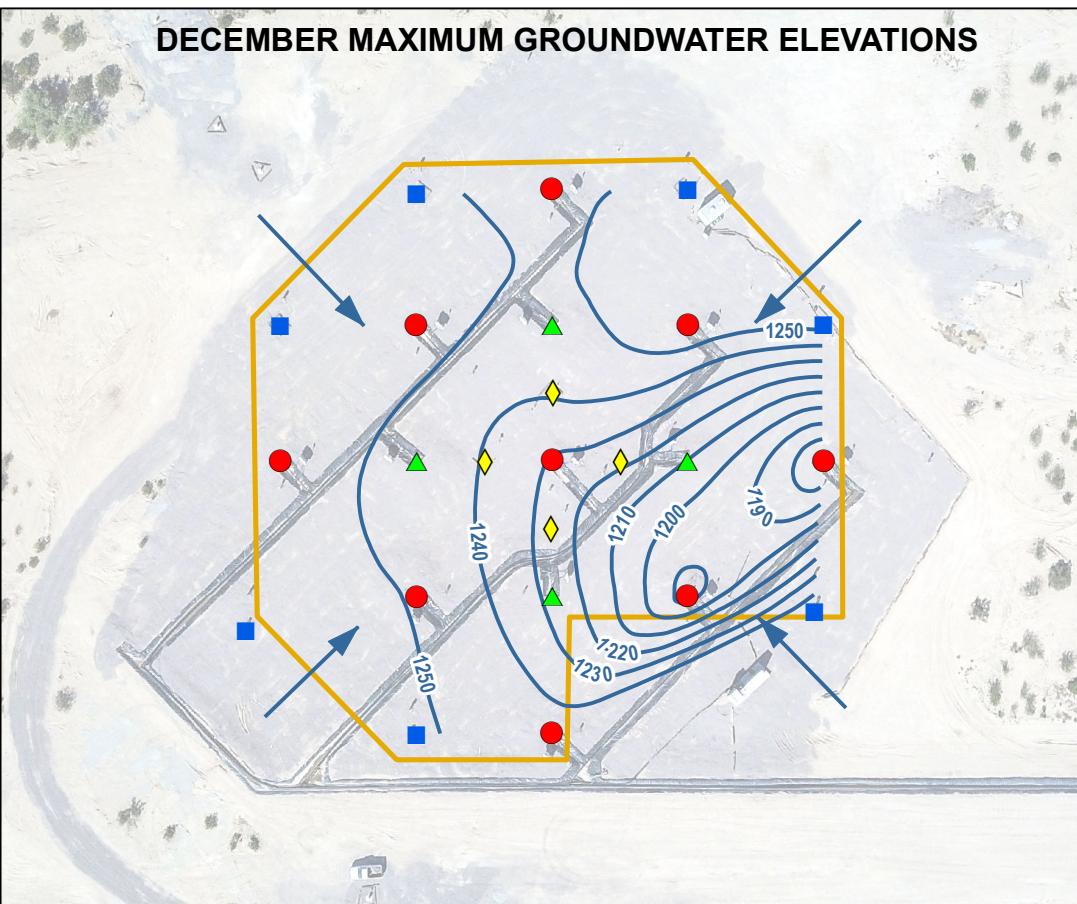
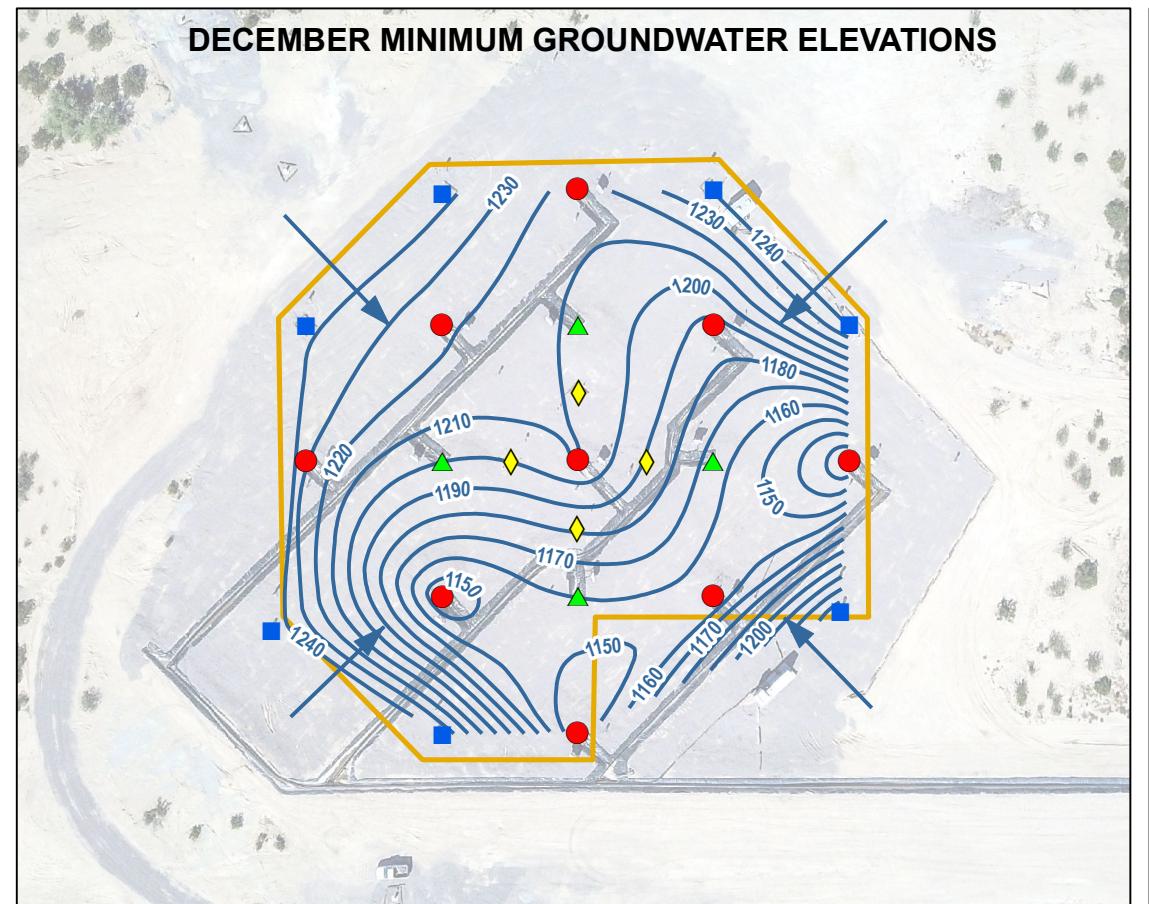
PTF WELLFIELD POTENTIOMETRIC
GROUNDWATER CONTOUR MAP -
OCTOBER 2020

FLORENCE
COPPER

JANUARY 2021

FIGURE 1





DECEMBER 2020					
WELL ID	MAX WLE DATE(S)	MAX WLE (FT ASML)	MIN WLE DATE(S)	MIN WLE (FT ASML)	AVG WLE (FT ASML)
R-01	12/23/2020	1246.88	12/4/2020	1214.08	1235.11
R-02	12/24/2020	1259.59	12/22/2020	1184.78	1232.10
R-03	12/29/2020	1166.03	12/2/2020	1117.99	1133.05
R-04	12/28/2020	1185.15	12/6/2020	1150.76	1167.50
R-05	12/28/2020	1247.02	12/28/2020	1141.74	1202.16
R-06	12/28/2020	1249.43	12/22/2020	1138.94	1214.18
R-07	12/30/2020	1251.97	12/6/2020	1230.86	1245.53
R-08	12/10/2020	1256.16	12/7/2020	1221.04	1237.69
R-09	12/31/2020	1229.13	12/1/2020	1210.65	1219.85
O-01	12/30/2020	1253.88	12/6/2020	1240.89	1248.94
O-02	12/27/2020	1252.97	12/1/2020	1241.13	1249.55
O-03	12/28/2020	1250.77	12/3/2020	1238.82	1247.43
O-04	12/18/2020	1250.65	12/19/2020	1239.53	1244.44
O-05	12/9/2020	1257.48	12/10/2020	1248.05	1251.97
O-06	12/25/2020	1251.11	12/6/2020	1242.30	1248.30
O-07	12/28/2020	1251.58	12/6/2020	1243.21	1248.56

NOTES

1. ALL LOCATIONS AND DIMENSIONS APPROXIMATE.
2. AMSL = ABOVE MEAN SEA LEVEL
3. WLE = WATER LEVEL ELEVATION
4. AREAL IMAGERY SOURCE: FLORENCE COPPER INC., OCTOBER 2018



0 100 200
SCALE IN FEET

HALEY
ALDRICH

FLORENCE COPPER, INC.
FLORENCE, ARIZONA

PTF WELLFIELD POTENTIOMETRIC
GROUNDWATER CONTOUR MAP -
DECEMBER 2020

FLORENCE
COPPER

JANUARY 2021

FIGURE 3

ATTACHMENT 4

Lower Basin Fill Unit Bulk Electrical Conductivity Contour Maps

MEMORANDUM

28 January 2021
File No. 133887-007

TO: Florence Copper Inc.
Mr. Brent Berg, General Manager

C: Florence Copper Inc.
Mr. Ian Ream, Senior Hydrogeologist

FROM: Haley & Aldrich, Inc.
Mark Nicholls, R.G.

SUBJECT: Summary of Bulk Electrical Conductivity Monitoring Results, Fourth Quarter 2020
Production Test Facility
Florence Copper Inc., Florence, Arizona



Haley & Aldrich, Inc. (Haley & Aldrich) has conducted statistical analysis of bulk electrical conductivity (EC) data collected by HydroGeophysics, Inc. at the Florence Copper Inc. (Florence Copper) Production Test Facility (PTF) located in Florence, Arizona, in accordance with Temporary Aquifer Protection Permit (Temporary APP) No. P-106360 and the Underground Injection Control (UIC) Permit No. R9UIC-AZ3-FR11-1. The procedures used to complete the analysis were described in the document titled *Procedures for Determining Bulk Electrical Conductivity Alert Levels* (Haley & Aldrich, 2018)¹.

Alert levels (AL) for bulk EC were initially approved in the letter issued by the U.S. Environmental Protection Agency dated 14 December 2018, and were adopted into the Temporary APP issued by the Arizona Department of Environmental Quality (ADEQ) on 5 December 2018 and renewed on 26 November 2019. ADEQ issued an amended APP on 13 February 2020 which updated the bulk EC ALs and the definition of a bulk EC exceedance. The bulk EC ALs have remained unchanged in subsequent amendments of the Temporary APP, including the most recent permit amendment issued on 16 December 2020.

¹ Haley & Aldrich, Inc., 2018. *Procedures for Determining Bulk Electrical Conductivity Alert Levels, Production Test Facility, Florence Copper Project*. August.

Alert Levels

To ensure that in-situ copper recovery fluids do not enter the Lower Basin Fill Unit (LBFU) from the Bedrock Oxide Unit, the three upper horizons (1 through 3) are monitored. The following ALs are established for these horizons:

Electrode Pair Horizon	Alert Level (ohm-meters)
Horizon 1	9.67
Horizon 2	9.89
Horizon 3	10.07

The ALs represent minimum values. Consequently, an exceedance is indicated if the measured apparent resistivity on one of these horizons is *lower* than the established AL on three adjacent or intersecting current paths.

Fourth Quarter 2020 Monitoring Results

Fourth quarter (Q4) 2020 includes 13 monitoring events for bulk EC between 8 October and 30 December 2020. Monitoring events were conducted on a weekly basis. No bulk EC AL exceedances occurred during the Q4 2020 monitoring period. Bulk EC monitoring maps for the monitoring period detail these results (Figures 1 through 13).

Data Summary

Tables 1 through 3 list the apparent resistivity results over this monitoring period for horizons 1 through 3, respectively.

Relative to the baseline dataset, no outliers were detected on these monitoring dates (defined as values over 4 times the interquartile range outside the range around the data median). As shown by the box plots presented in Attachment A and Tables 1 through 3, the grouped data from each horizon fall within the range of the baseline dataset.

Attachment B shows the data from each horizon over time, during the baseline period, and monitoring both before and after the PTF became operational. The data collected during Q4 2020 is within the established tolerance limits.

Enclosures:

- Table 1 – Bulk Electrical Conductivity Monitoring Results, Horizon 1 (40 Feet Above LBFU/Oxide Contact)
- Table 2 – Bulk Electrical Conductivity Monitoring Results, Horizon 2 (20 Feet Above LBFU/Oxide Contact)
- Table 3 – Bulk Electrical Conductivity Monitoring Results, Horizon 3 (at LBFU/Oxide Contact)
- Figure 1 – Apparent Bulk Resistivity Between Electrode Pairs by Horizon –10/8/2020, Production Test Facility
- Figure 2 – Apparent Bulk Resistivity Between Electrode Pairs by Horizon –10/15/2020, Production Test Facility
- Figure 3 – Apparent Bulk Resistivity Between Electrode Pairs by Horizon –10/22/2020, Production Test Facility
- Figure 4 – Apparent Bulk Resistivity Between Electrode Pairs by Horizon –10/27/2020, Production Test Facility
- Figure 5 – Apparent Bulk Resistivity Between Electrode Pairs by Horizon –11/3/2020, Production Test Facility
- Figure 6 – Apparent Bulk Resistivity Between Electrode Pairs by Horizon –11/14/2020, Production Test Facility
- Figure 7 – Apparent Bulk Resistivity Between Electrode Pairs by Horizon –11/20/2020, Production Test Facility
- Figure 8 – Apparent Bulk Resistivity Between Electrode Pairs by Horizon –11/24/2020, Production Test Facility
- Figure 9 – Apparent Bulk Resistivity Between Electrode Pairs by Horizon –12/3/2020, Production Test Facility
- Figure 10 – Apparent Bulk Resistivity Between Electrode Pairs by Horizon –12/8/2020, Production Test Facility
- Figure 11 – Apparent Bulk Resistivity Between Electrode Pairs by Horizon –12/18/2020, Production Test Facility
- Figure 12 – Apparent Bulk Resistivity Between Electrode Pairs by Horizon –12/22/2020, Production Test Facility
- Figure 13 – Apparent Bulk Resistivity Between Electrode Pairs by Horizon –12/30/2020, Production Test Facility
- Attachment A – Box Diagrams for Fourth Quarter Monitoring Data
- Attachment B – Summary Plot of Bulk Electrical Conductivity

TABLES

TABLE 1**BULK ELECTRICAL CONDUCTIVITY MONITORING RESULTS****HORIZON 1 (40 FEET ABOVE LBFU/OXIDE CONTACT)**

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Electrode 1	Electrode 2	Sending Well	Receiving Well	Apparent Resistivity ($\Omega\text{-m}$)												
				10/8/2020	10/15/2020	10/22/2020	10/27/2020	11/3/2020	11/14/2020	11/20/2020	11/24/2020	12/3/2020	12/8/2020	12/18/2020	12/22/2020	12/30/2020
B-01-BC-01	B-02-BC-01	O-01	O-02	12.69	12.71	12.68	12.75	12.75	12.75	12.78	12.75	12.80	12.78	12.82	12.83	12.85
B-01-BC-01	B-03-BC1-02	O-01	O-03	11.29	11.30	11.31	11.40	11.40	11.40	11.43	11.43	11.51	11.53	11.61	11.61	11.60
B-01-BC-01	B-04-BC-01	O-01	O-04	13.42	13.43	13.43	13.54	13.56	13.54	13.57	13.58	13.67	13.68	13.80	13.80	13.82
B-01-BC-01	B-05-BC-01	O-01	O-05	12.34	12.34	12.36	12.46	12.47	12.46	12.47	12.50	12.58	12.55	12.69	12.68	12.69
B-01-BC-01	B-06-BC-01	O-01	O-06	11.78	11.79	11.79	11.88	11.87	11.88	11.90	11.92	11.99	11.95	12.08	12.08	12.08
B-01-BC-01	B-07-BC1-02	O-01	O-07	11.79	11.79	11.80	11.86	11.86	11.87	11.88	11.89	11.94	11.92	12.01	12.01	12.02
B-02-BC-01	B-03-BC1-02	O-02	O-03	10.40	10.40	10.41	10.49	10.51	10.49	10.50	10.52	10.55	10.57	10.61	10.64	10.64
B-02-BC-01	B-04-BC-01	O-02	O-04	14.04	14.05	14.09	14.19	14.24	14.20	14.24	14.25	14.32	14.31	14.45	14.49	14.48
B-02-BC-01	B-05-BC-01	O-02	O-05	13.61	13.62	13.63	13.74	13.77	13.75	13.78	13.78	13.88	13.85	13.98	14.00	14.02
B-02-BC-01	B-06-BC-01	O-02	O-06	13.54	13.54	13.57	13.67	13.70	13.68	13.71	13.72	13.80	13.79	13.91	13.95	13.95
B-02-BC-01	B-07-BC1-02	O-02	O-07	12.38	12.39	12.39	12.49	12.51	12.49	12.53	12.52	12.59	12.60	12.68	12.71	12.72
B-03-BC1-02	B-04-BC-01	O-03	O-04	12.62	12.64	12.64	12.73	12.76	12.73	12.78	12.77	12.85	12.84	12.89	12.95	12.95
B-03-BC1-02	B-05-BC-01	O-03	O-05	13.10	13.12	13.13	13.22	13.26	13.23	13.27	13.27	13.35	13.34	13.41	13.48	13.48
B-03-BC1-02	B-06-BC-01	O-03	O-06	14.25	14.25	14.25	14.38	14.41	14.38	14.43	14.43	14.51	14.52	14.61	14.69	14.69
B-03-BC1-02	B-07-BC1-02	O-03	O-07	13.45	13.44	13.48	13.57	13.60	13.58	13.62	13.64	13.72	13.67	13.78	13.87	13.87
B-04-BC-01	B-05-BC-01	O-04	O-05	10.74	10.77	10.77	10.82	10.84	10.80	10.84	10.82	10.86	10.85	10.87	10.89	10.92
B-04-BC-01	B-06-BC-01	O-04	O-06	12.26	12.29	12.28	12.37	12.40	12.38	12.41	12.43	12.49	12.46	12.53	12.60	12.61
B-04-BC-01	B-07-BC1-02	O-04	O-07	12.97	12.97	13.01	13.10	13.13	13.11	13.12	13.14	13.22	13.17	13.26	13.36	13.37
B-05-BC-01	B-06-BC-01	O-05	O-06	10.05	10.08	10.07	10.13	10.15	10.13	10.15	10.16	10.20	10.18	10.23	10.26	10.28
B-05-BC-01	B-07-BC1-02	O-05	O-07	10.91	10.92	10.94	11.02	11.04	11.01	11.04	11.06	11.12	11.11	11.16	11.21	11.21
B-06-BC-01	B-07-BC1-02	O-06	O-07	10.02	10.02	10.02	10.06	10.06	10.08	10.06	10.08	10.11	10.12	10.13	10.16	10.17

Notes $\Omega\text{-m}$ = ohm-meters

LBFU = Lower Basin Fill Unit

Oxide = Bedrock Oxide Unit

Horizon 1 Alert Level = 9.67 $\Omega\text{-m}$

TABLE 2**BULK ELECTRICAL CONDUCTIVITY MONITORING RESULTS****HORIZON 2 (20 FEET ABOVE LBFU/OXIDE CONTACT)**

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Electrode 1	Electrode 2	Sending Well	Receiving Well	Apparent Resistivity ($\Omega\text{-m}$)												
				10/8/2020	10/15/2020	10/22/2020	10/27/2020	11/3/2020	11/14/2020	11/20/2020	11/24/2020	12/3/2020	12/8/2020	12/18/2020	12/22/2020	12/30/2020
B-01-BC-02	B-02-BC-02	O-01	O-02	14.44	14.44	14.43	14.49	14.51	14.48	14.51	14.49	14.52	14.50	14.57	14.57	14.59
B-01-BC-02	B-03-BC1-04	O-01	O-03	11.39	11.41	11.42	11.49	11.51	11.51	11.53	11.55	11.60	11.51	11.70	11.68	11.71
B-01-BC-02	B-04-BC-02	O-01	O-04	13.36	13.36	13.36	13.47	13.50	13.48	13.52	13.51	13.57	13.53	13.72	13.71	13.75
B-01-BC-02	B-05-BC-02	O-01	O-05	12.25	12.25	12.26	12.36	12.36	12.36	12.39	12.39	12.45	12.42	12.58	12.56	12.58
B-01-BC-02	B-06-BC-02	O-01	O-06	11.68	11.69	11.69	11.78	11.79	11.77	11.82	11.80	11.87	11.81	11.98	11.96	11.99
B-01-BC-02	B-07-BC1-04	O-01	O-07	11.78	11.78	11.79	11.84	11.85	11.85	11.88	11.87	11.92	11.86	11.98	11.97	11.99
B-02-BC-02	B-03-BC1-04	O-02	O-03	11.07	11.07	11.07	11.15	11.17	11.15	11.18	11.18	11.22	11.16	11.27	11.32	11.31
B-02-BC-02	B-04-BC-02	O-02	O-04	14.17	14.19	14.19	14.31	14.34	14.32	14.36	14.38	14.45	14.40	14.56	14.60	14.60
B-02-BC-02	B-05-BC-02	O-02	O-05	13.70	13.70	13.71	13.82	13.84	13.83	13.85	13.86	13.94	13.89	14.03	14.06	14.09
B-02-BC-02	B-06-BC-02	O-02	O-06	13.61	13.60	13.64	13.75	13.76	13.75	13.77	13.79	13.86	13.80	13.96	13.98	14.01
B-02-BC-02	B-07-BC1-04	O-02	O-07	12.41	12.41	12.41	12.52	12.53	12.51	12.56	12.54	12.62	12.54	12.69	12.72	12.73
B-03-BC1-04	B-04-BC-02	O-03	O-04	12.63	12.63	12.66	12.73	12.76	12.73	12.76	12.79	12.83	12.83	12.90	12.95	12.97
B-03-BC1-04	B-05-BC-02	O-03	O-05	13.01	13.03	13.05	13.14	13.17	13.15	13.17	13.19	13.25	13.18	13.30	13.38	13.39
B-03-BC1-04	B-06-BC-02	O-03	O-06	14.16	14.17	14.18	14.29	14.34	14.30	14.34	14.34	14.43	14.39	14.51	14.58	14.58
B-03-BC1-04	B-07-BC1-04	O-03	O-07	13.26	13.26	13.29	13.38	13.42	13.39	13.43	13.44	13.52	13.53	13.58	13.65	13.66
B-04-BC-02	B-05-BC-02	O-04	O-05	11.12	11.11	11.11	11.16	11.17	11.16	11.18	11.17	11.20	11.17	11.21	11.24	11.27
B-04-BC-02	B-06-BC-02	O-04	O-06	12.26	12.28	12.28	12.36	12.40	12.38	12.41	12.42	12.48	12.44	12.53	12.59	12.61
B-04-BC-02	B-07-BC1-04	O-04	O-07	12.77	12.80	12.80	12.88	12.94	12.90	12.95	12.95	13.03	12.97	13.08	13.15	13.16
B-05-BC-02	B-06-BC-02	O-05	O-06	10.28	10.29	10.29	10.35	10.37	10.35	10.38	10.36	10.41	10.40	10.46	10.47	10.49
B-05-BC-02	B-07-BC1-04	O-05	O-07	10.76	10.78	10.80	10.86	10.88	10.86	10.90	10.90	10.96	10.94	11.00	11.04	11.05
B-06-BC-02	B-07-BC1-04	O-06	O-07	10.76	10.79	10.79	10.84	10.85	10.83	10.86	10.84	10.87	10.88	10.91	10.93	10.94

Notes $\Omega\text{-m}$ = ohm-meters

LBFU = Lower Basin Fill Unit

Oxide = Bedrock Oxide Unit

Horizon 2 Alert Level = 9.89 $\Omega\text{-m}$

TABLE 3**BULK ELECTRICAL CONDUCTIVITY MONITORING RESULTS****HORIZON 3 (AT LBFU/OXIDE CONTACT)**

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Electrode 1	Electrode 2	Sending Well	Receiving Well	Apparent Resistivity ($\Omega\text{-m}$)												
				10/8/2020	10/15/2020	10/22/2020	10/27/2020	11/3/2020	11/14/2020	11/20/2020	11/24/2020	12/3/2020	12/8/2020	12/18/2020	12/22/2020	12/30/2020
B-01-BC-03	B-02-BC-03	O-01	O-02	15.29	15.31	15.30	15.37	15.36	15.35	15.37	15.36	15.39	15.38	15.43	15.42	15.45
B-01-BC-03	B-03-BC2-02	O-01	O-03	11.62	11.62	11.64	11.73	11.74	11.72	11.75	11.75	11.81	11.77	11.92	11.92	11.94
B-01-BC-03	B-04-BC-03	O-01	O-04	13.34	13.34	13.34	13.44	13.48	13.46	13.49	13.47	13.54	13.53	13.67	13.65	13.69
B-01-BC-03	B-05-BC-03	O-01	O-05	12.18	12.19	12.21	12.29	12.32	12.31	12.33	12.32	12.38	12.35	12.50	12.48	12.50
B-01-BC-03	B-06-BC-03	O-01	O-06	11.57	11.57	11.57	11.66	11.68	11.66	11.69	11.68	11.74	11.70	11.84	11.84	11.85
B-01-BC-03	B-07-BC2-02	O-01	O-07	12.04	12.04	12.05	12.10	12.11	12.11	12.13	12.13	12.18	12.15	12.23	12.23	12.24
B-02-BC-03	B-03-BC2-02	O-02	O-03	10.86	10.92	10.90	10.98	11.02	11.01	11.03	11.04	11.09	11.01	11.15	11.17	11.20
B-02-BC-03	B-04-BC-03	O-02	O-04	14.07	14.07	14.10	14.19	14.23	14.20	14.24	14.25	14.31	14.30	14.42	14.45	14.45
B-02-BC-03	B-05-BC-03	O-02	O-05	13.58	13.59	13.58	13.69	13.73	13.70	13.73	13.74	13.79	13.73	13.89	13.92	13.93
B-02-BC-03	B-06-BC-03	O-02	O-06	13.49	13.49	13.51	13.63	13.64	13.64	13.67	13.66	13.73	13.67	13.83	13.86	13.85
B-02-BC-03	B-07-BC2-02	O-02	O-07	12.52	12.52	12.51	12.61	12.63	12.61	12.64	12.63	12.69	12.67	12.77	12.79	12.81
B-03-BC2-02	B-04-BC-03	O-03	O-04	12.59	12.61	12.61	12.70	12.74	12.71	12.75	12.75	12.81	12.81	12.87	12.93	12.95
B-03-BC2-02	B-05-BC-03	O-03	O-05	13.39	13.43	13.44	13.55	13.56	13.53	13.57	13.55	13.64	13.54	13.72	13.77	13.79
B-03-BC2-02	B-06-BC-03	O-03	O-06	14.89	14.91	14.93	15.07	15.05	15.00	15.08	15.02	15.13	15.03	15.24	15.32	15.33
B-03-BC2-02	B-07-BC2-02	O-03	O-07	13.83	13.84	13.88	14.01	13.99	13.95	14.00	13.96	14.06	14.04	14.16	14.24	14.24
B-04-BC-03	B-05-BC-03	O-04	O-05	11.76	11.78	11.77	11.83	11.84	11.82	11.85	11.83	11.88	11.85	11.88	11.89	11.94
B-04-BC-03	B-06-BC-03	O-04	O-06	12.37	12.39	12.41	12.47	12.51	12.49	12.54	12.53	12.58	12.58	12.63	12.70	12.71
B-04-BC-03	B-07-BC2-02	O-04	O-07	12.69	12.70	12.73	12.79	12.84	12.80	12.87	12.85	12.92	12.88	12.96	13.05	13.06
B-05-BC-03	B-06-BC-03	O-05	O-06	10.55	10.55	10.55	10.61	10.63	10.61	10.64	10.64	10.67	10.68	10.71	10.73	10.75
B-05-BC-03	B-07-BC2-02	O-05	O-07	10.65	10.67	10.67	10.73	10.77	10.74	10.76	10.78	10.82	10.83	10.87	10.90	10.92
B-06-BC-03	B-07-BC2-02	O-06	O-07	11.00	10.98	10.99	11.05	11.06	11.04	11.07	11.06	11.09	11.07	11.11	11.13	11.15

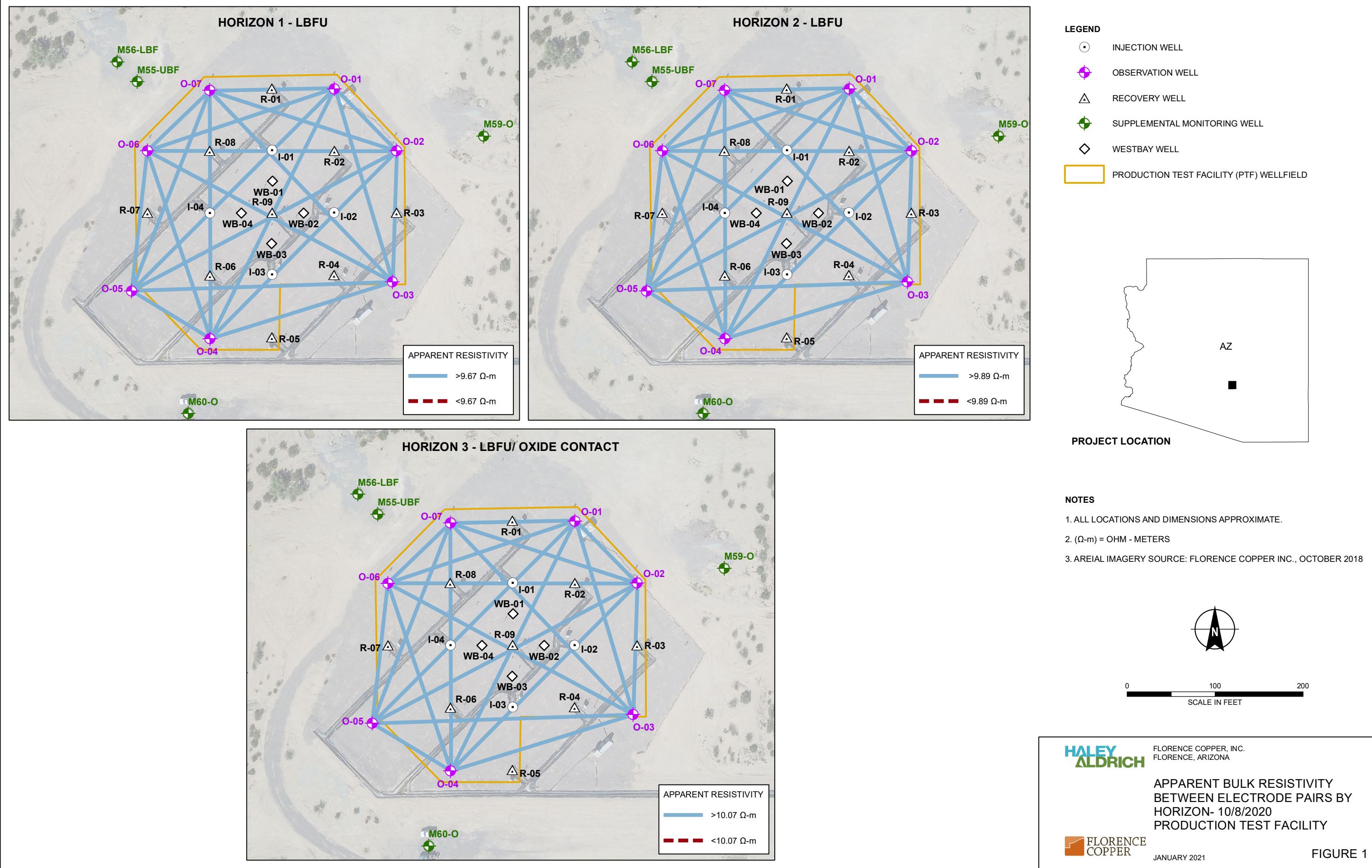
Notes $\Omega\text{-m}$ = ohm-meters

LBFU = Lower Basin Fill Unit

Oxide = Bedrock Oxide Unit

Horizon 3 Alert Level = 10.07 $\Omega\text{-m}$

FIGURES



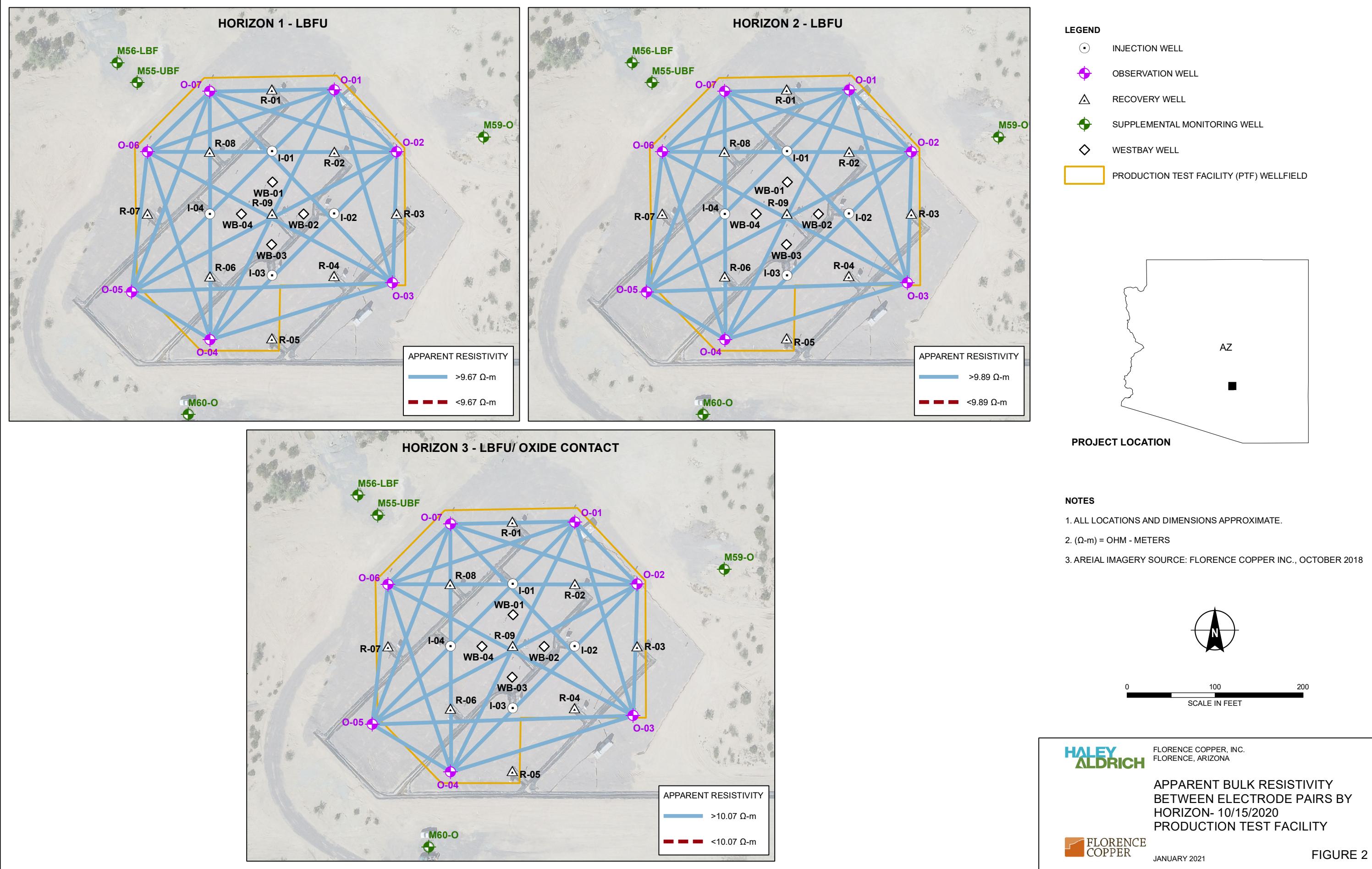
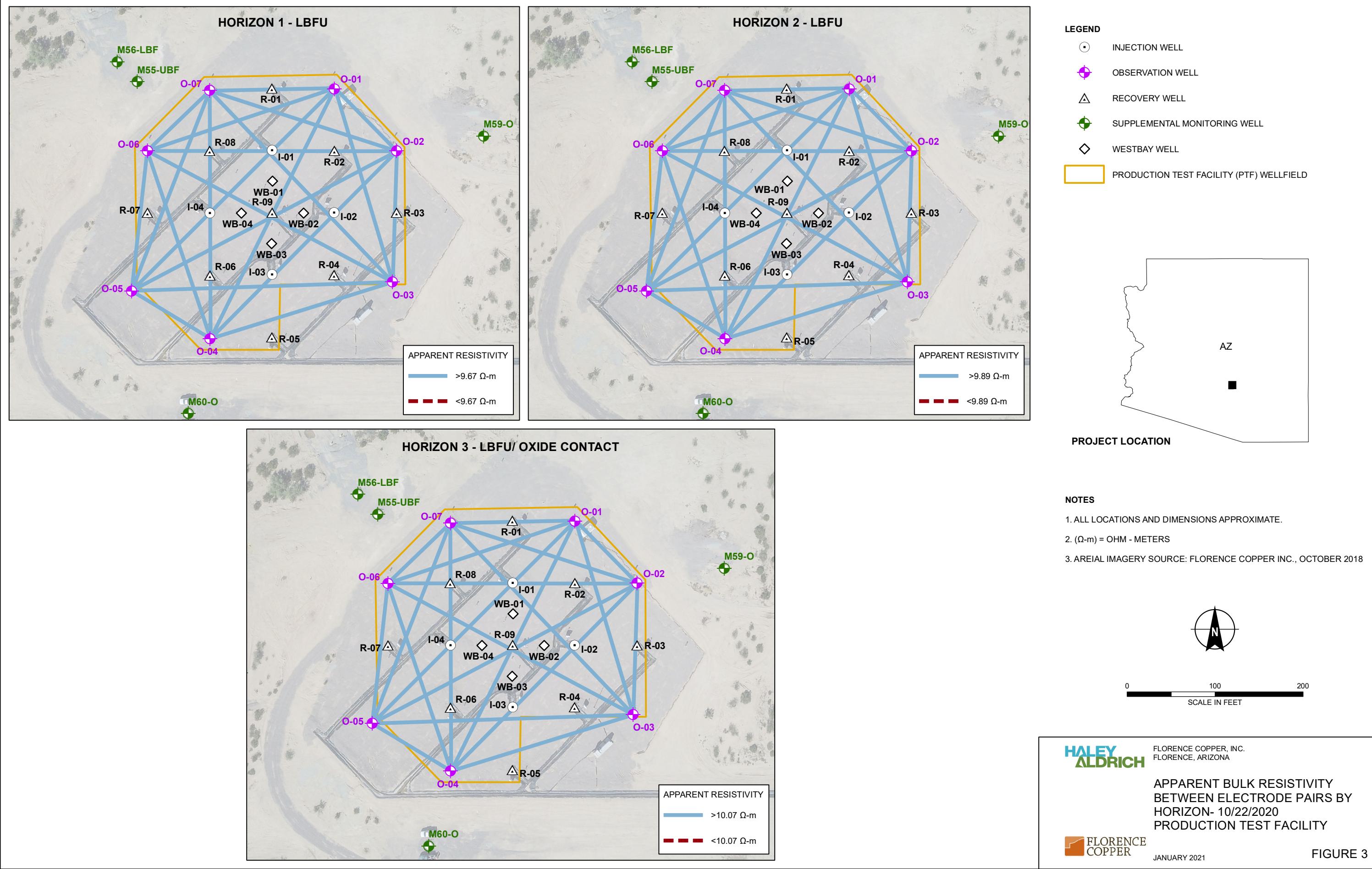
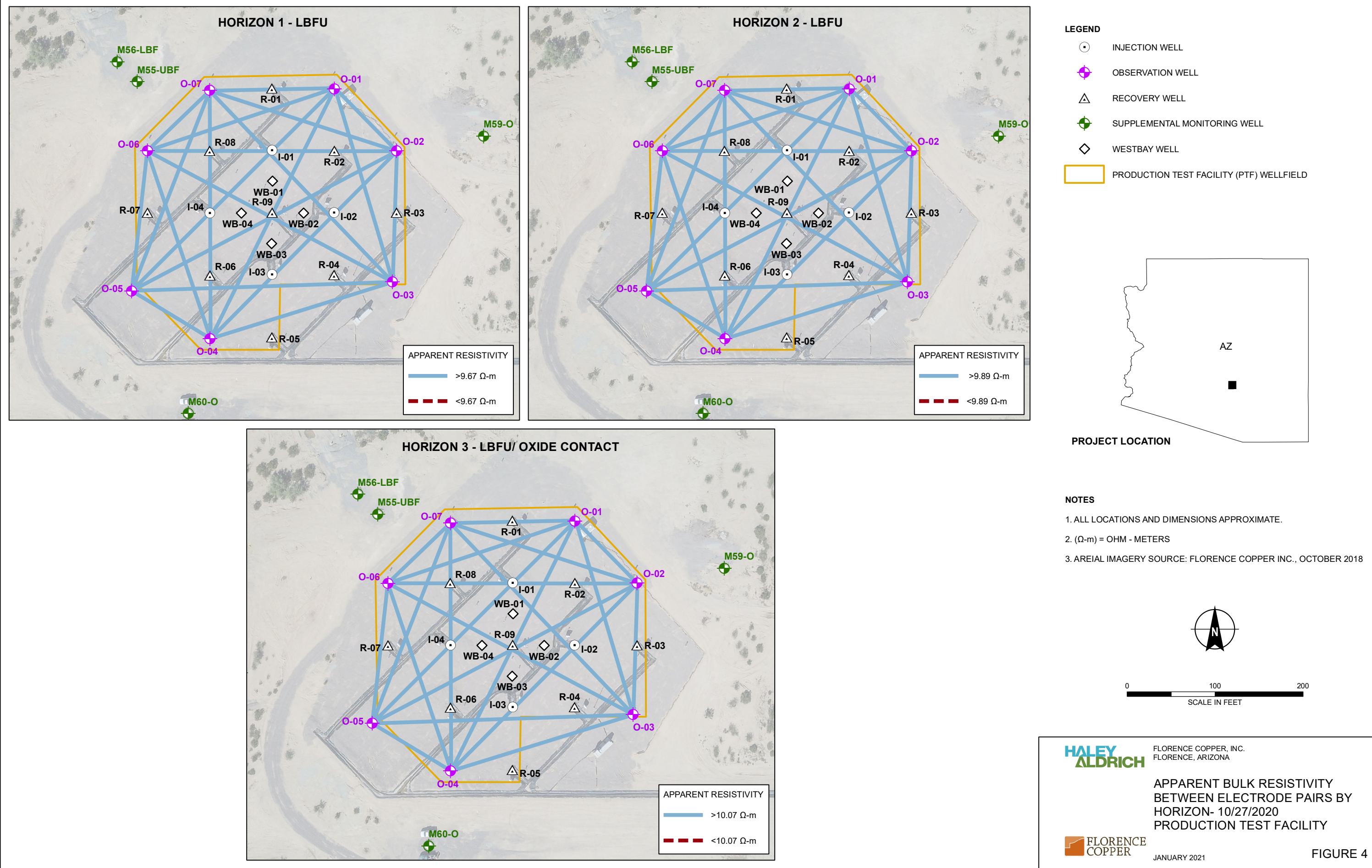
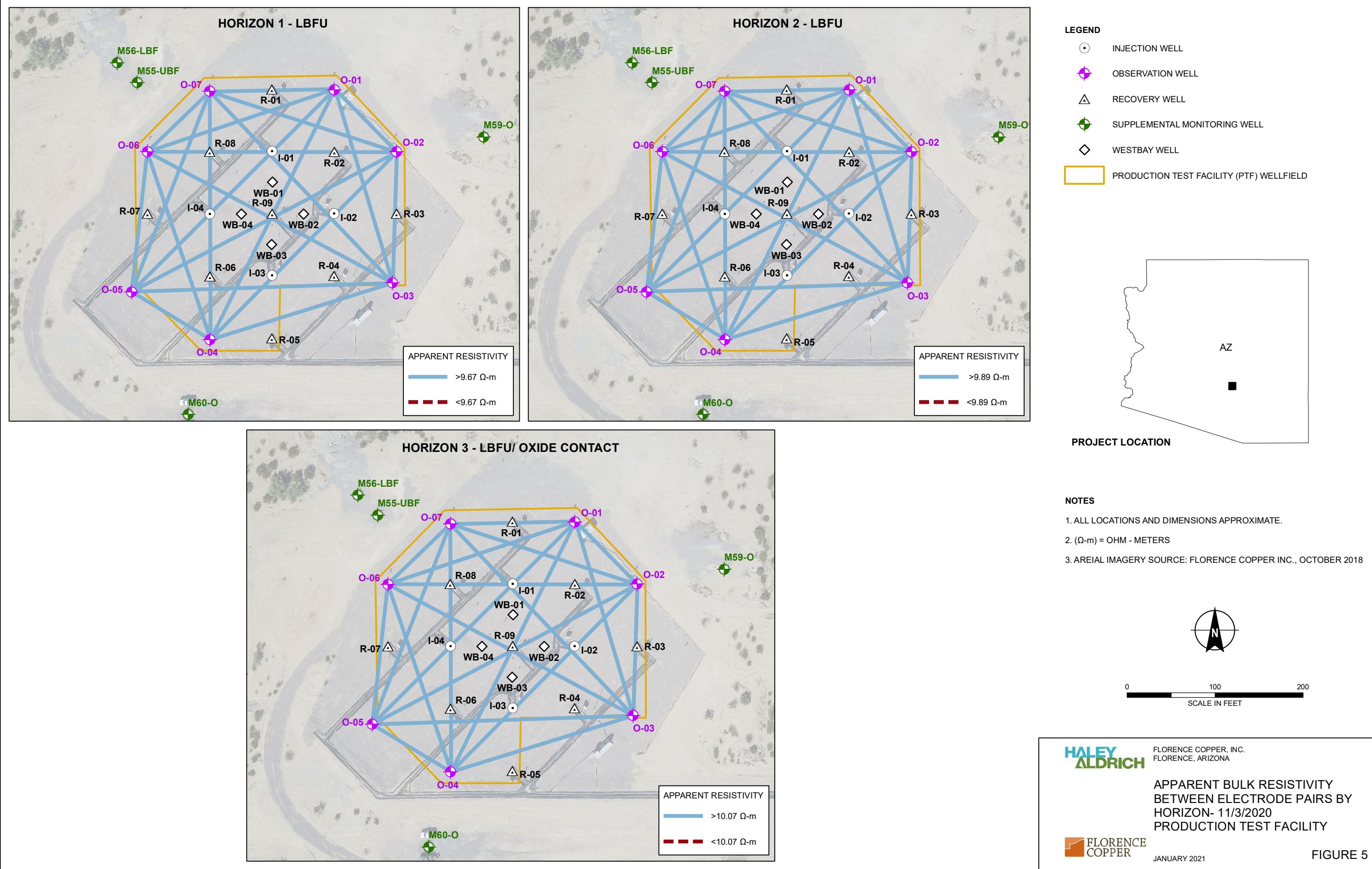
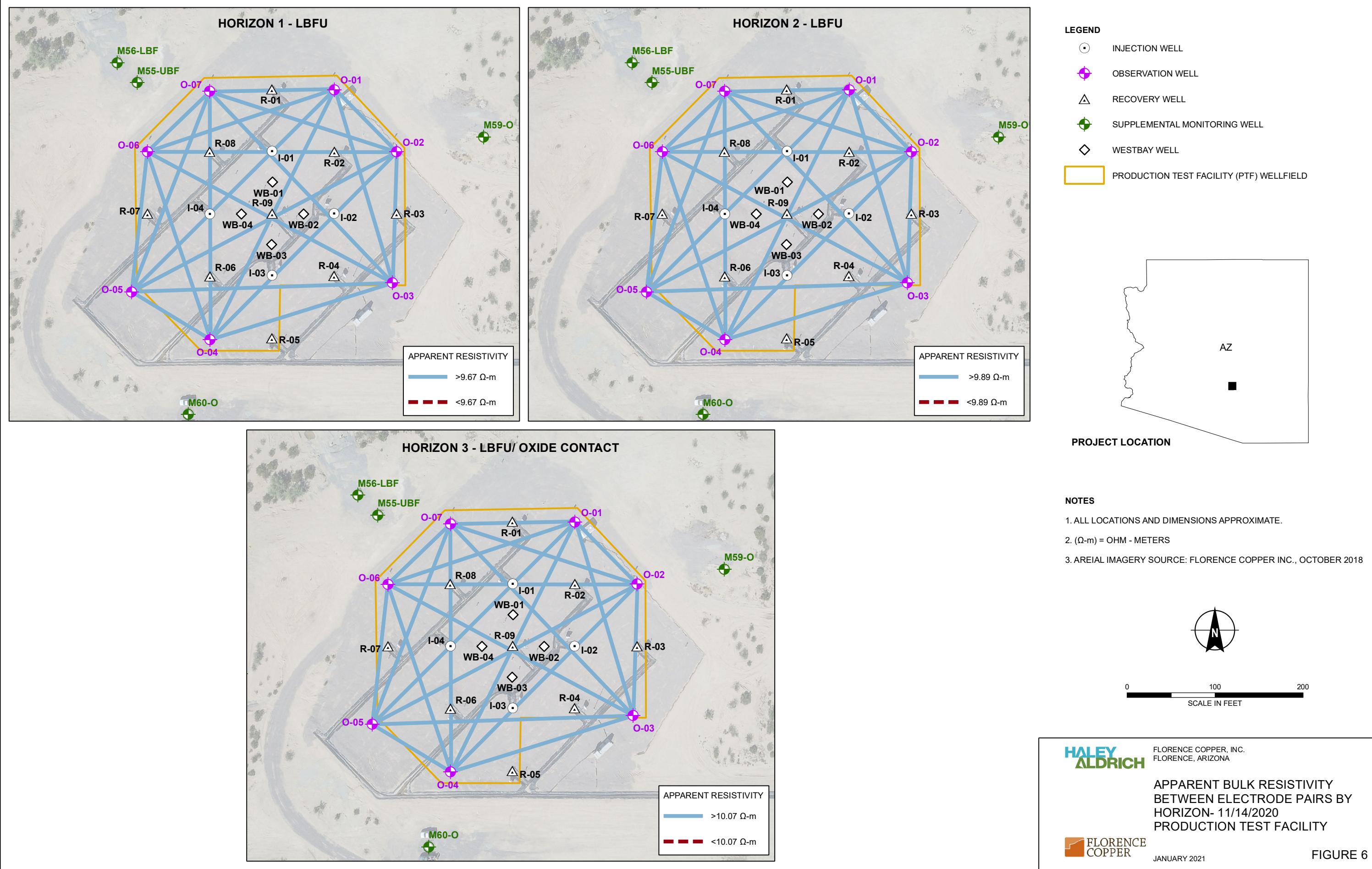


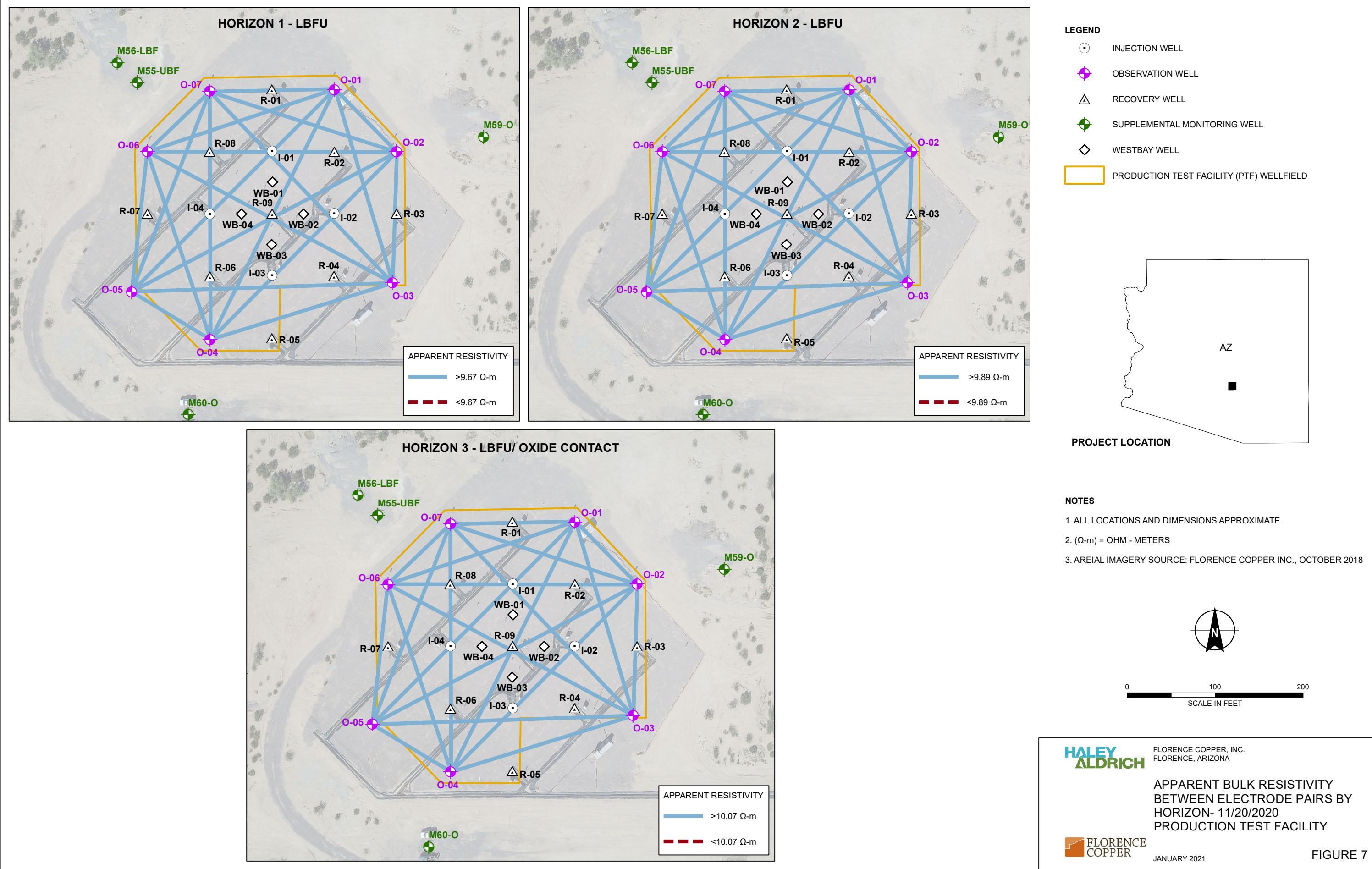
FIGURE 2

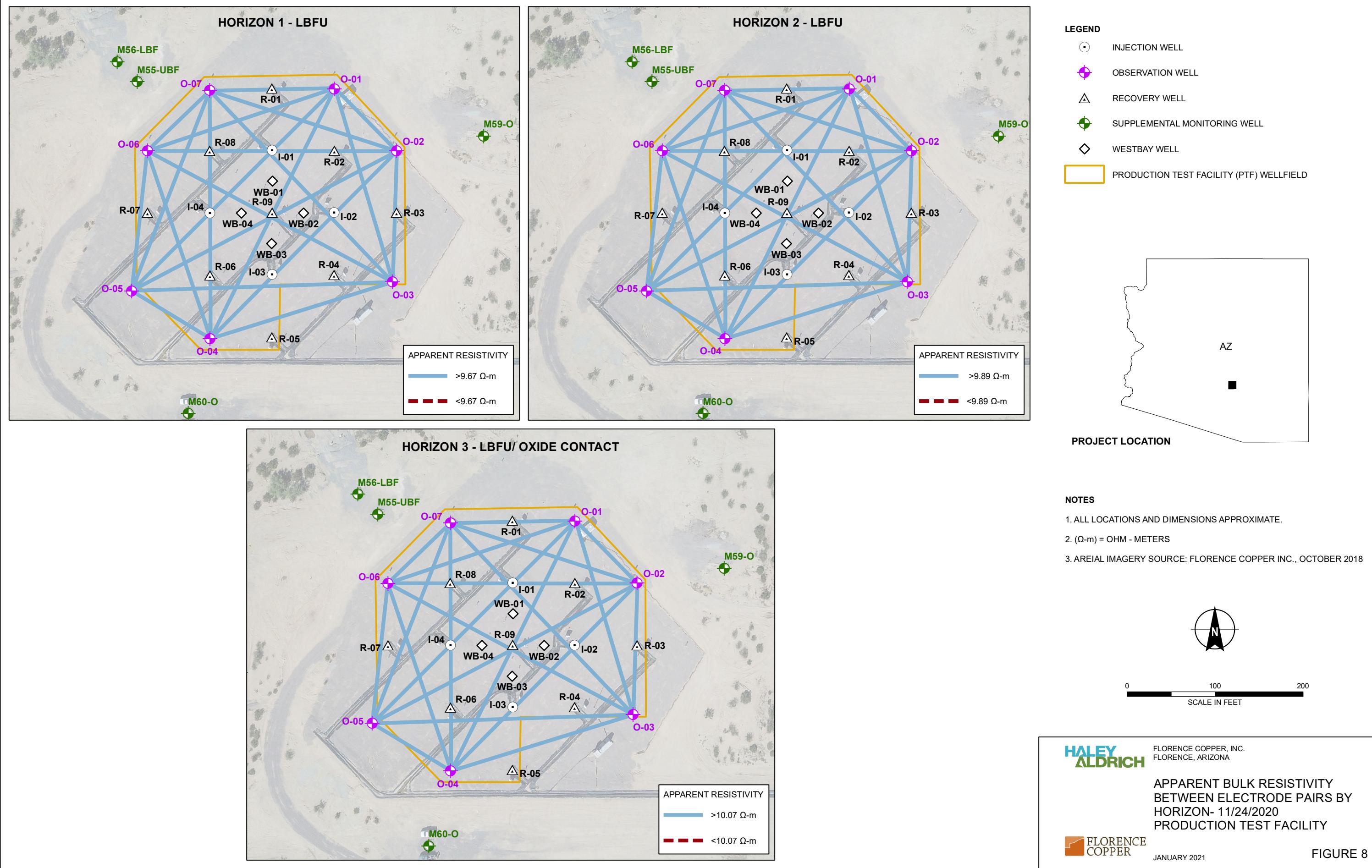


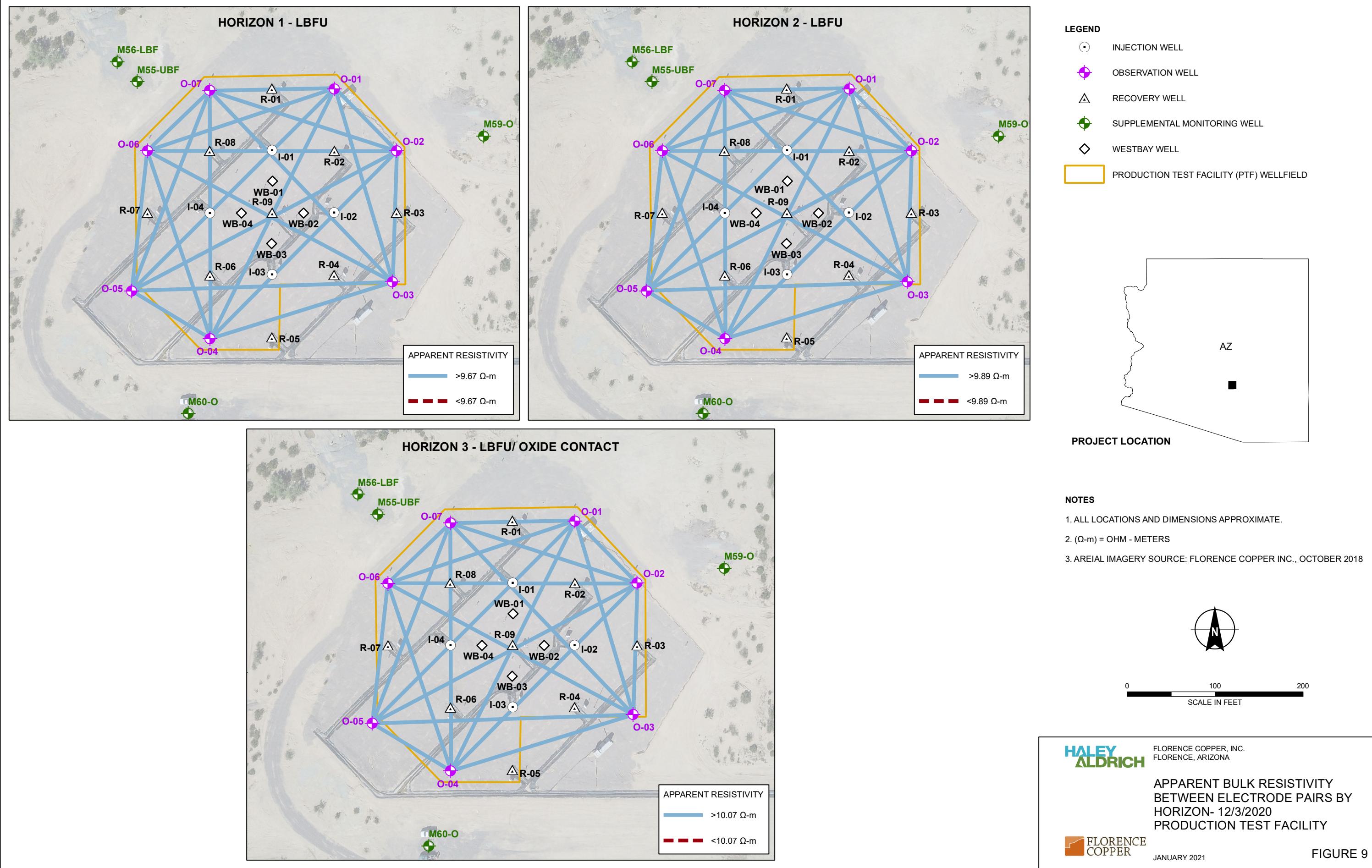


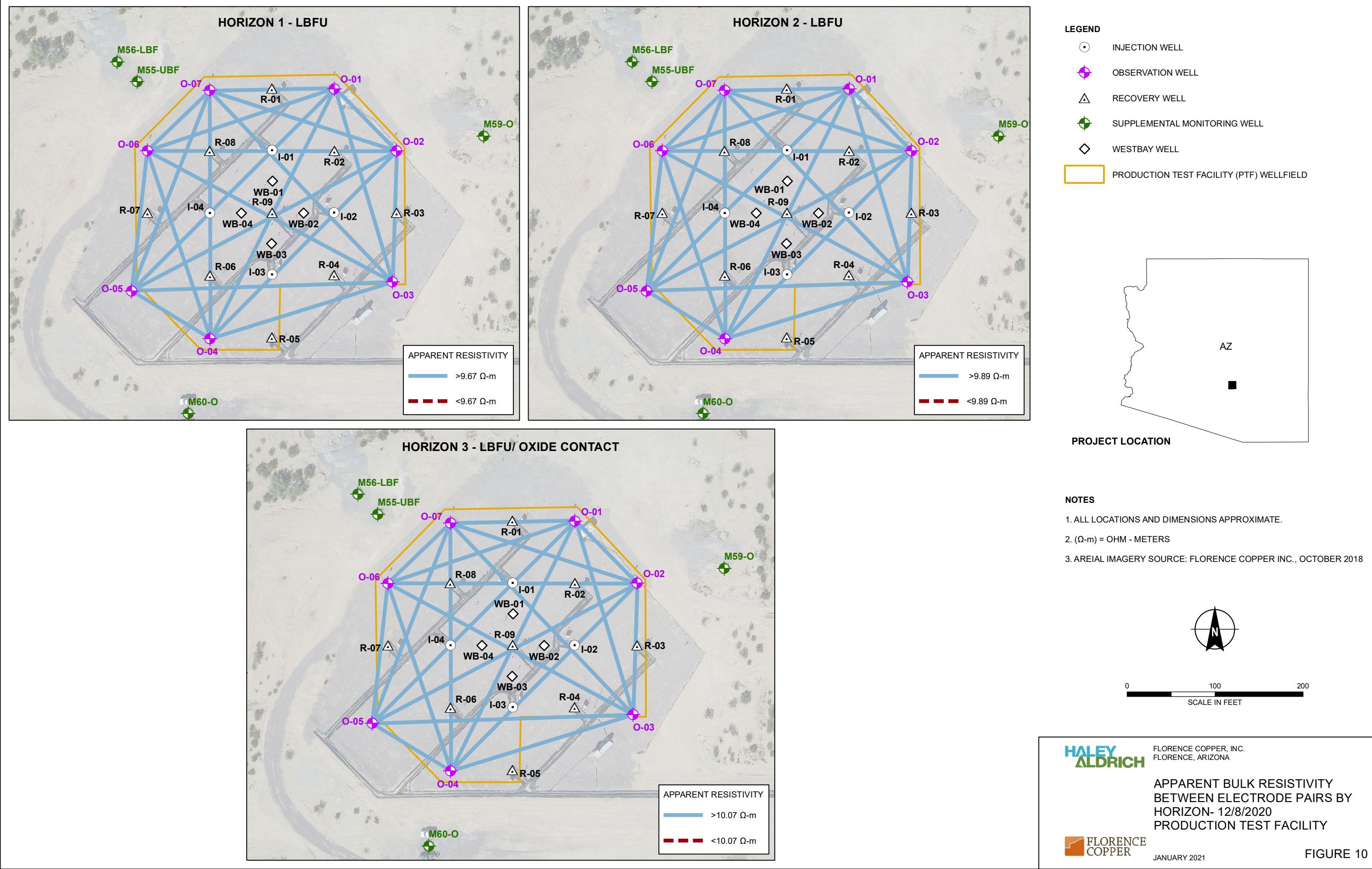


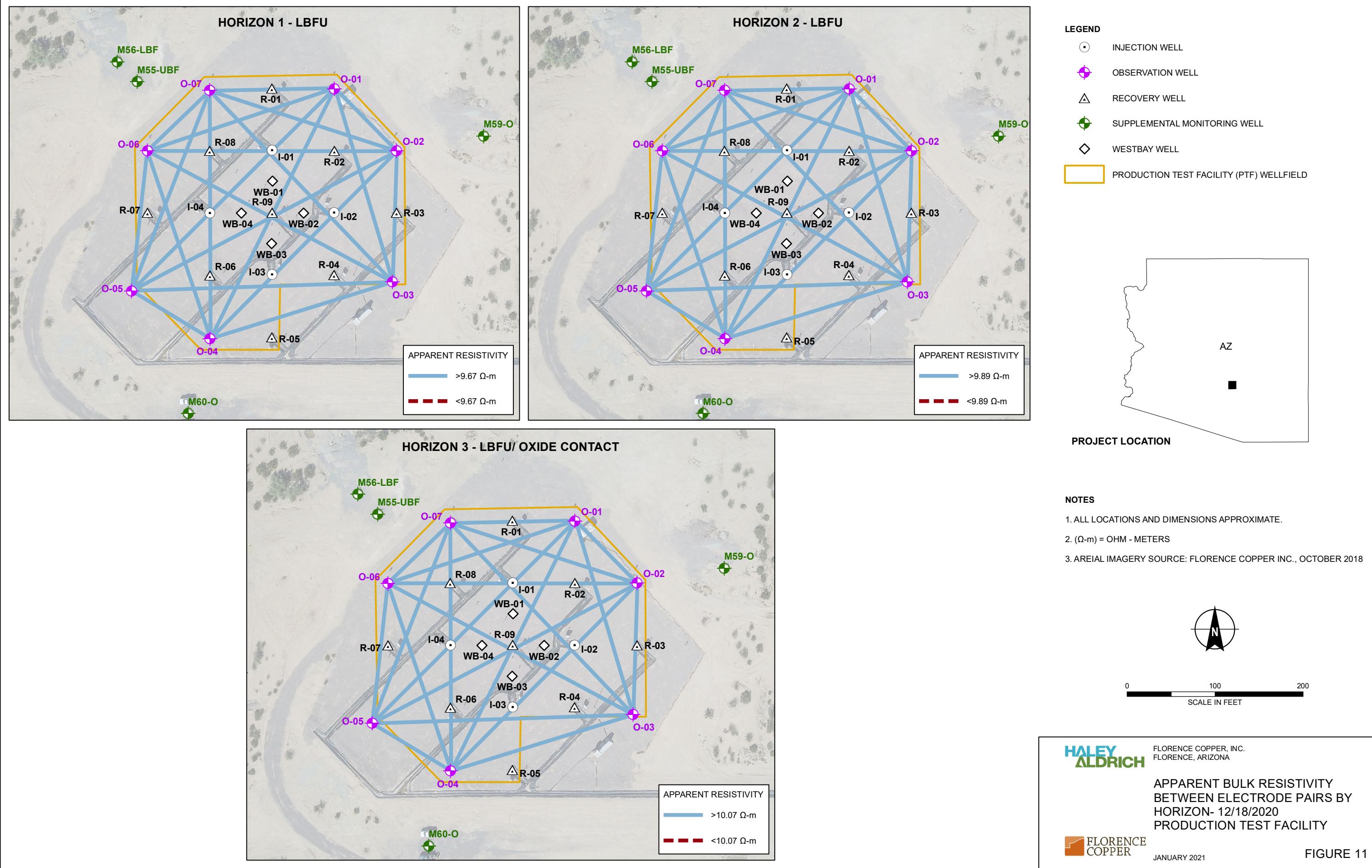


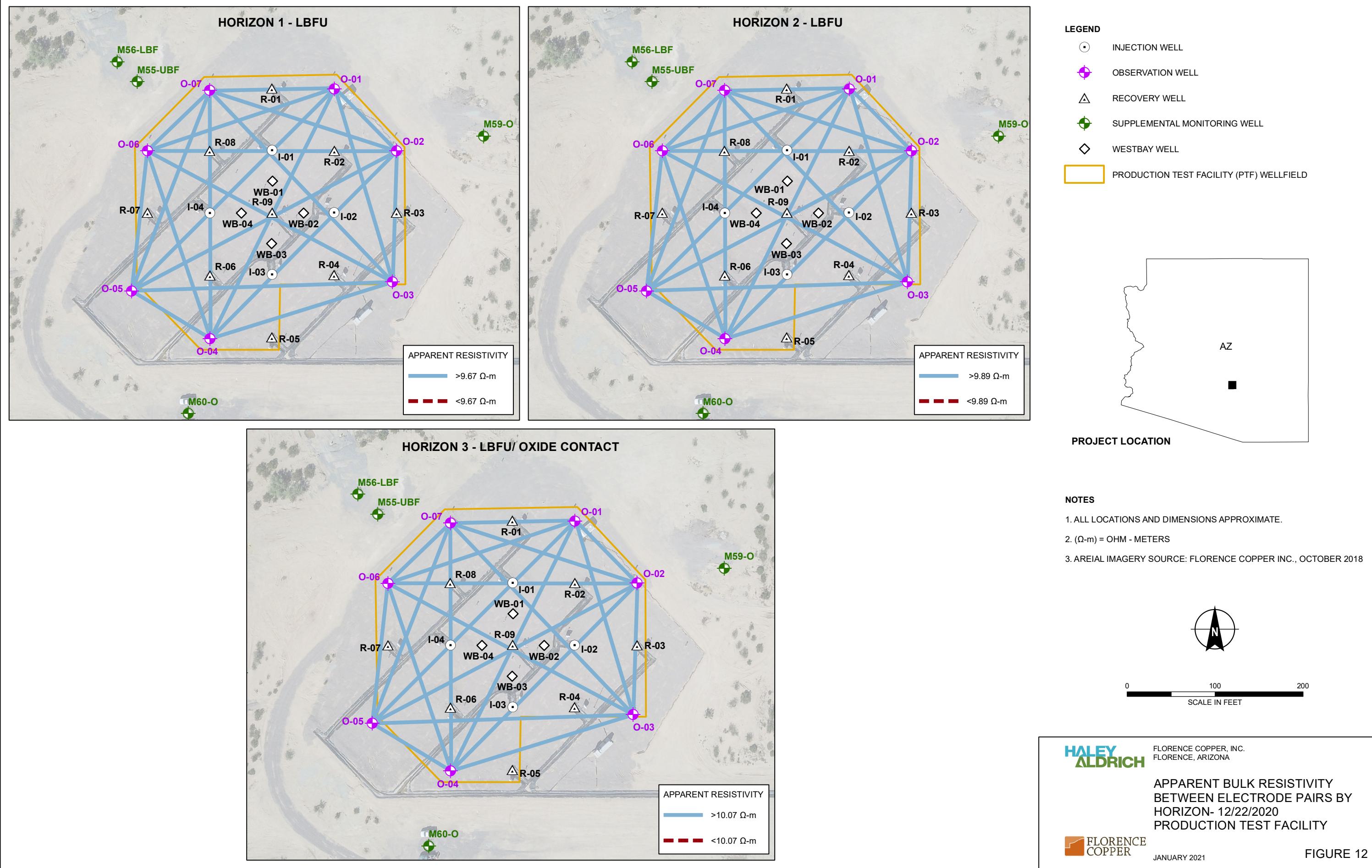


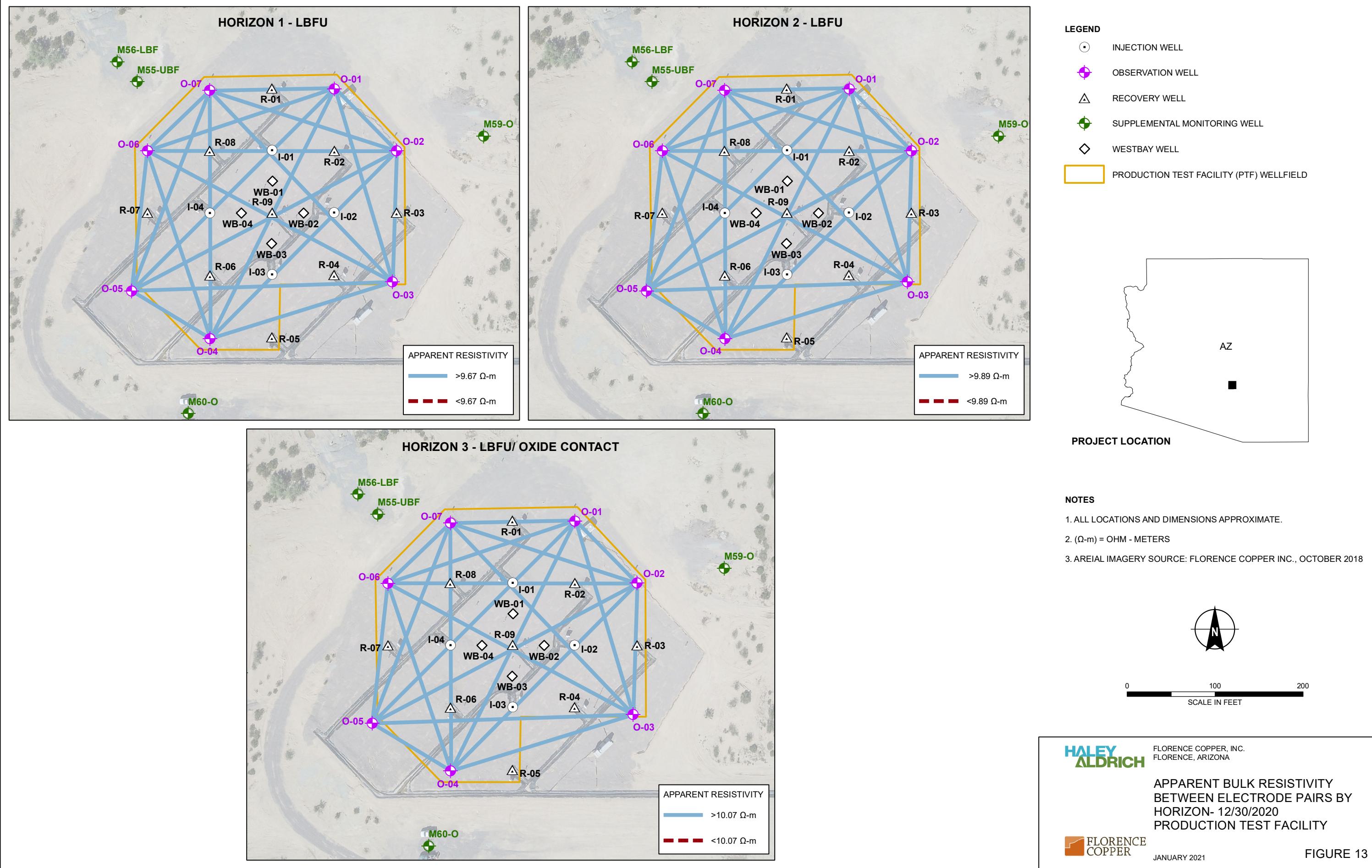










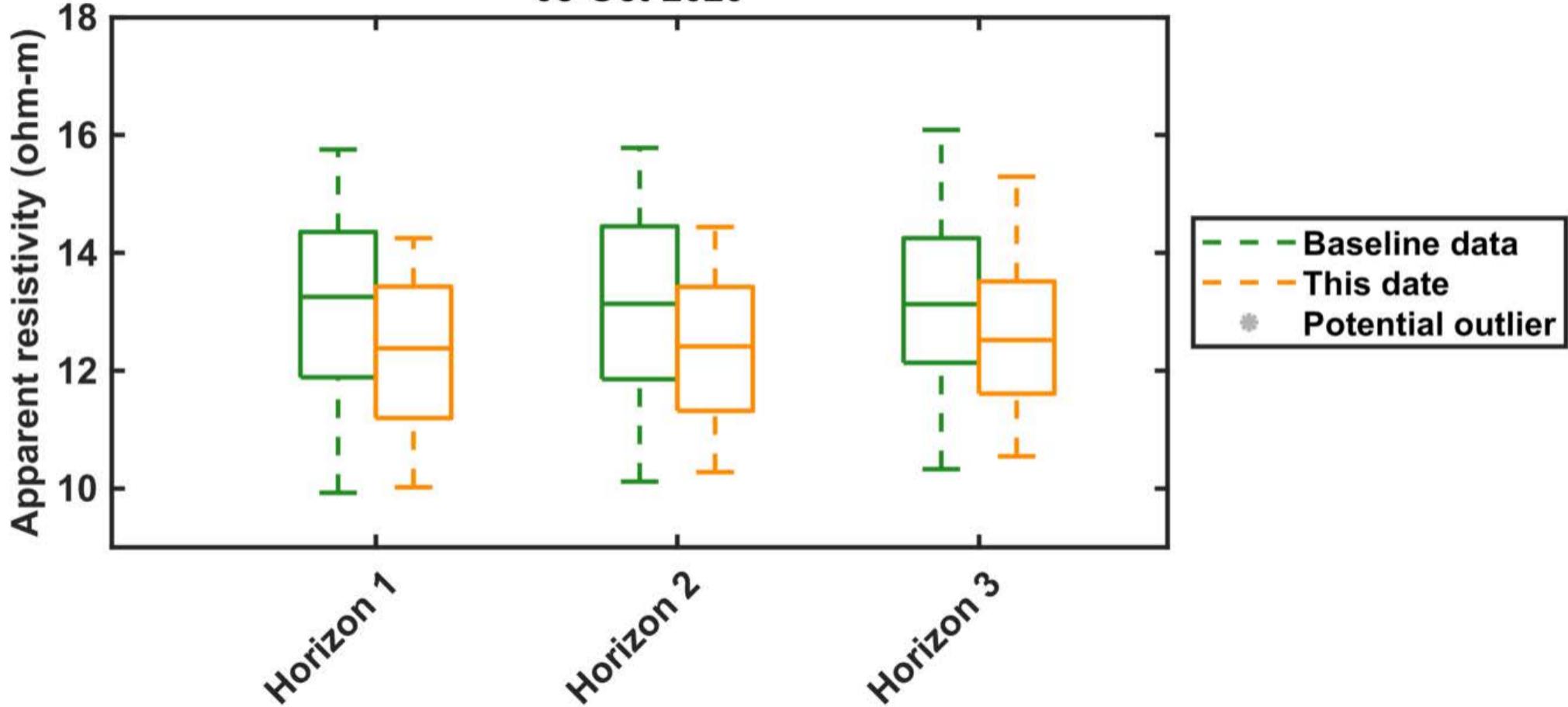


ATTACHMENT A

Box Diagrams for Fourth Quarter Monitoring Data

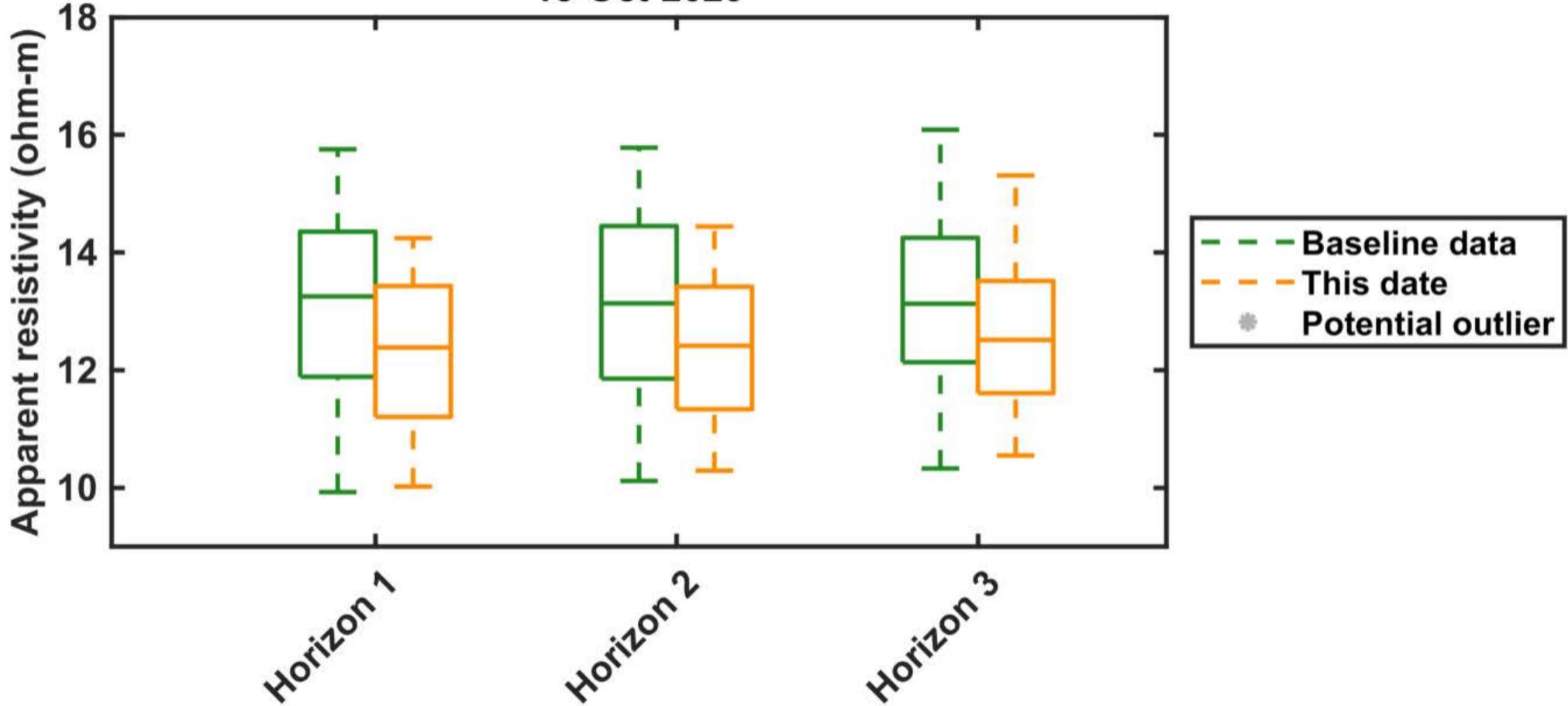
Florence electrical conductivity monitoring

08-Oct-2020



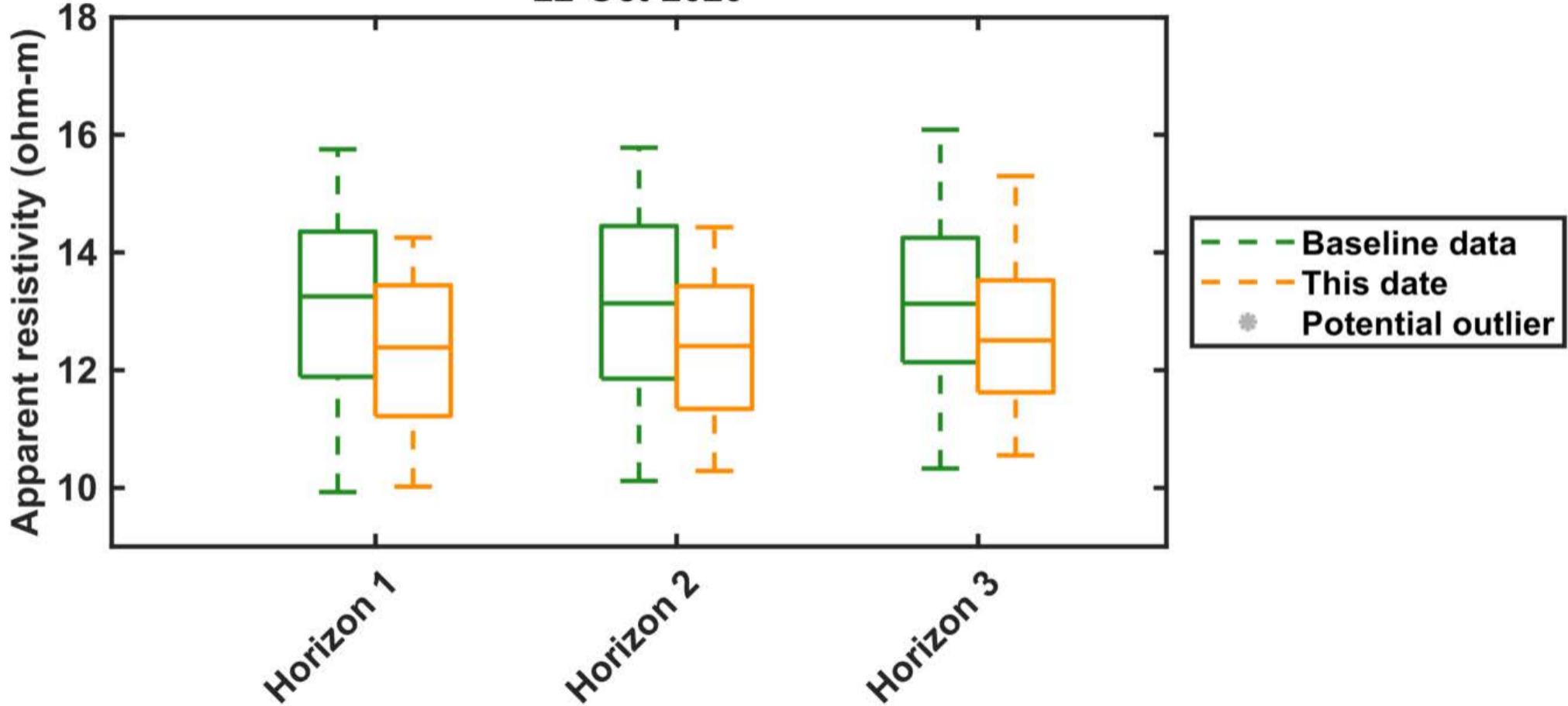
Florence electrical conductivity monitoring

15-Oct-2020



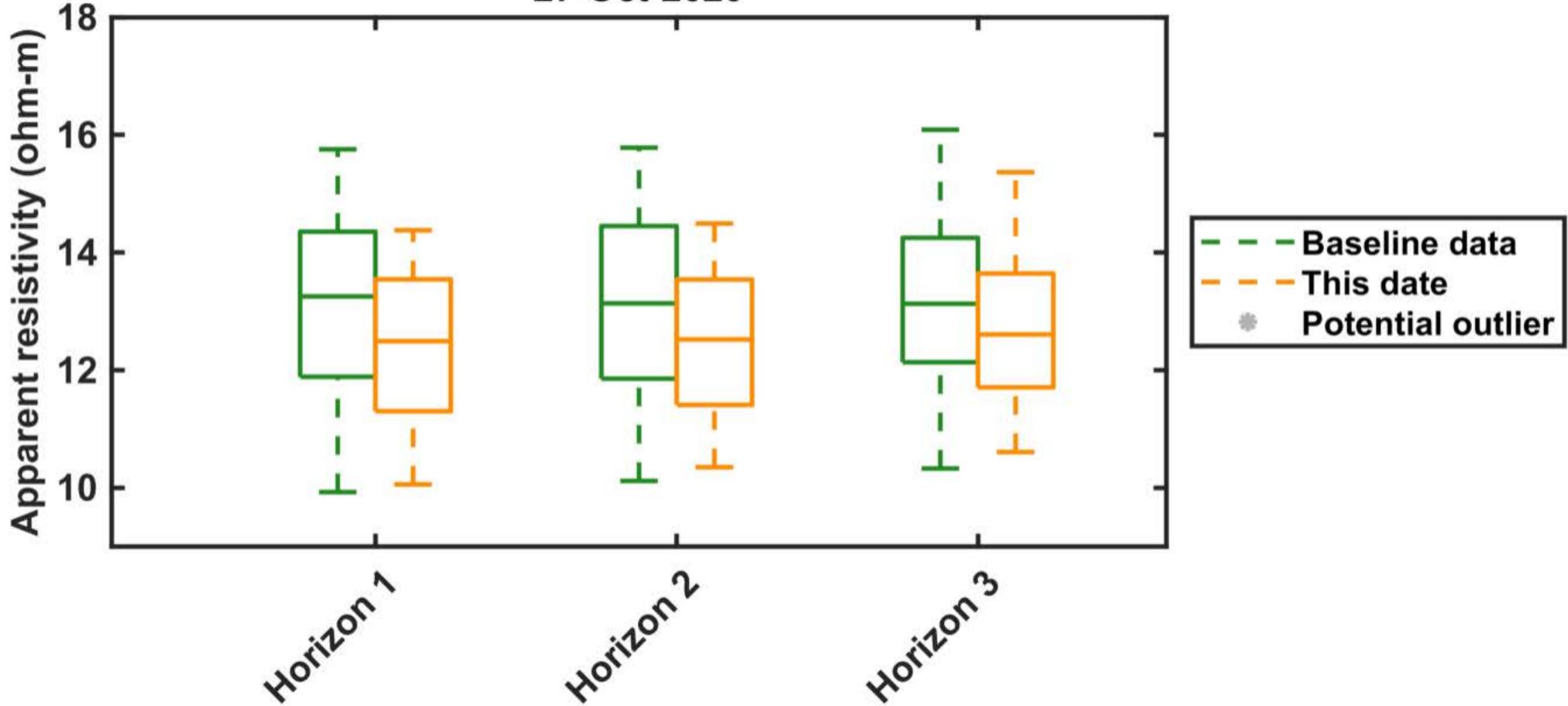
Florence electrical conductivity monitoring

22-Oct-2020



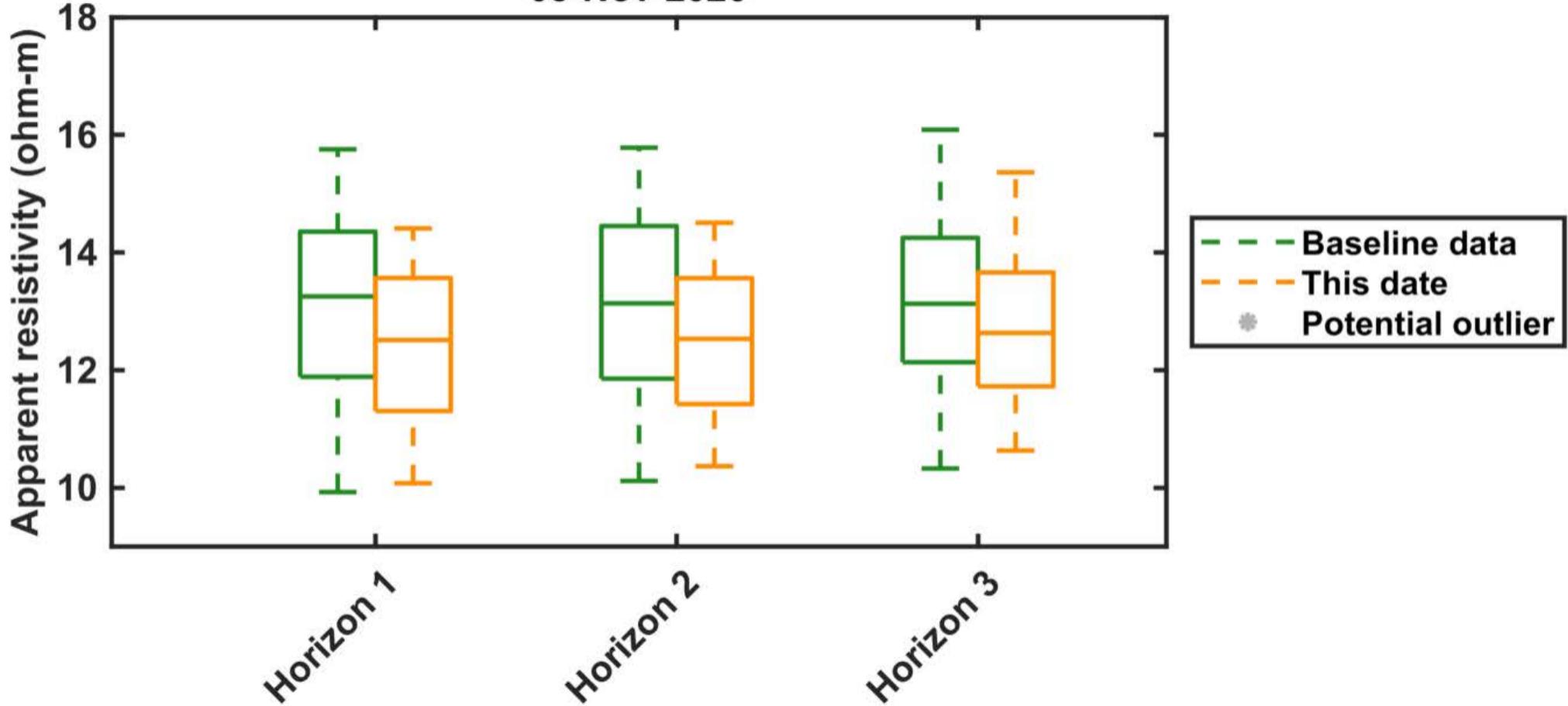
Florence electrical conductivity monitoring

27-Oct-2020



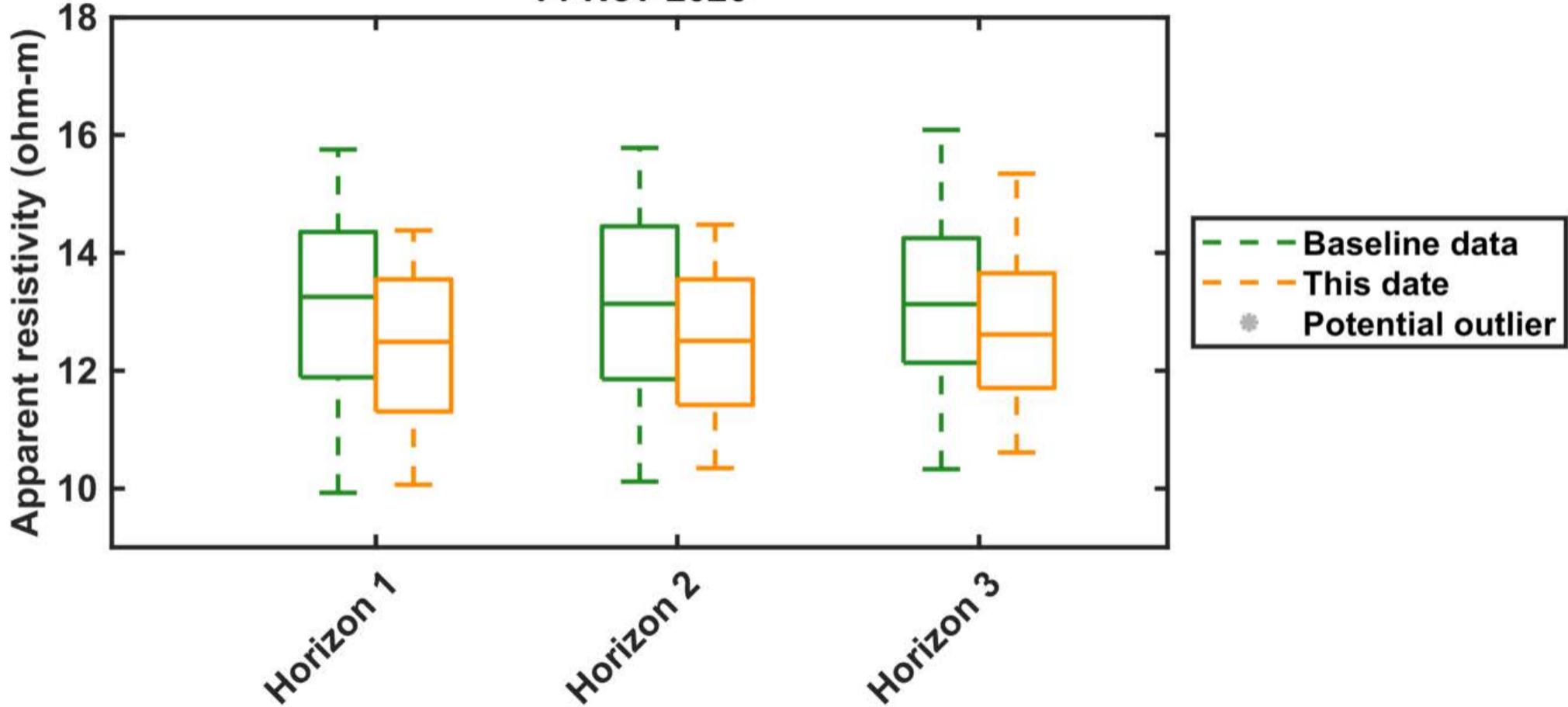
Florence electrical conductivity monitoring

03-Nov-2020



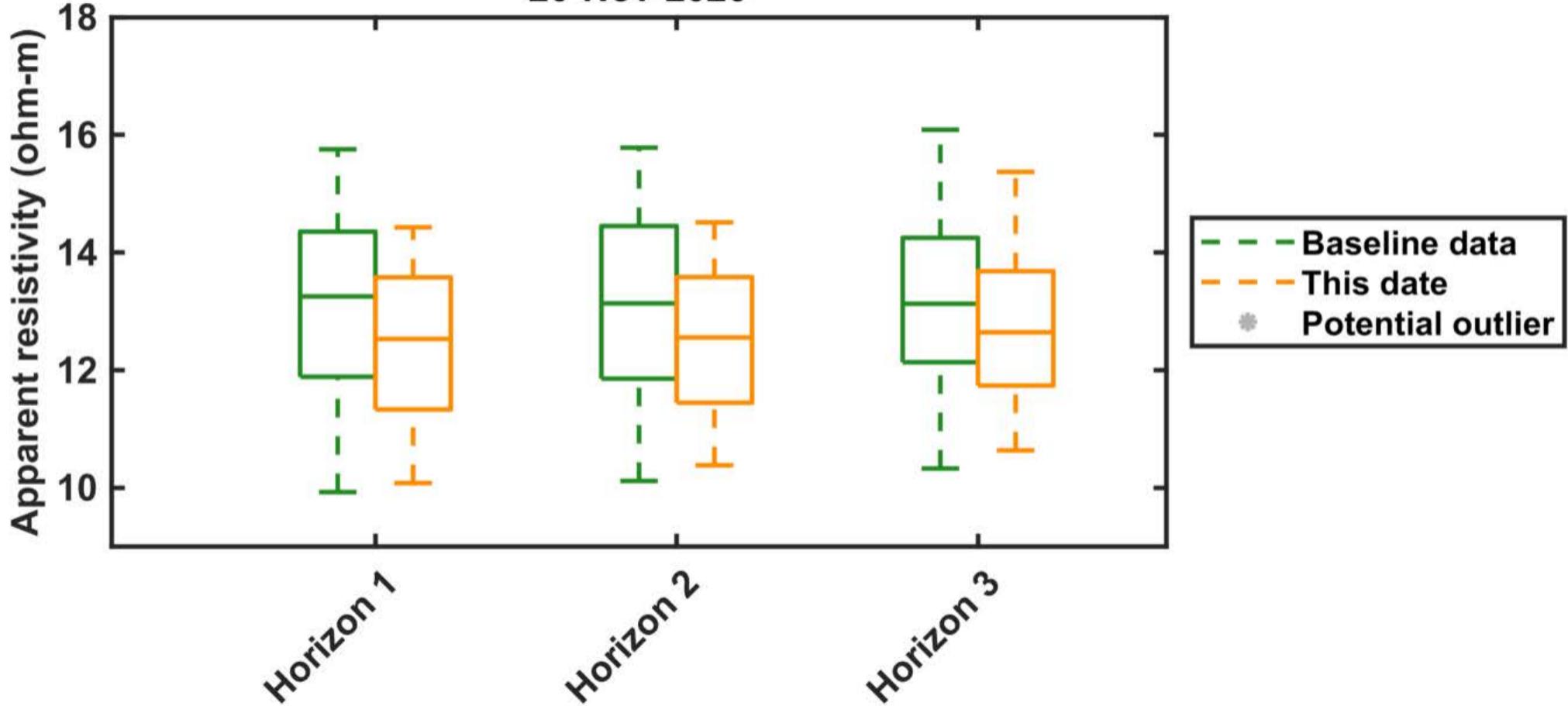
Florence electrical conductivity monitoring

14-Nov-2020



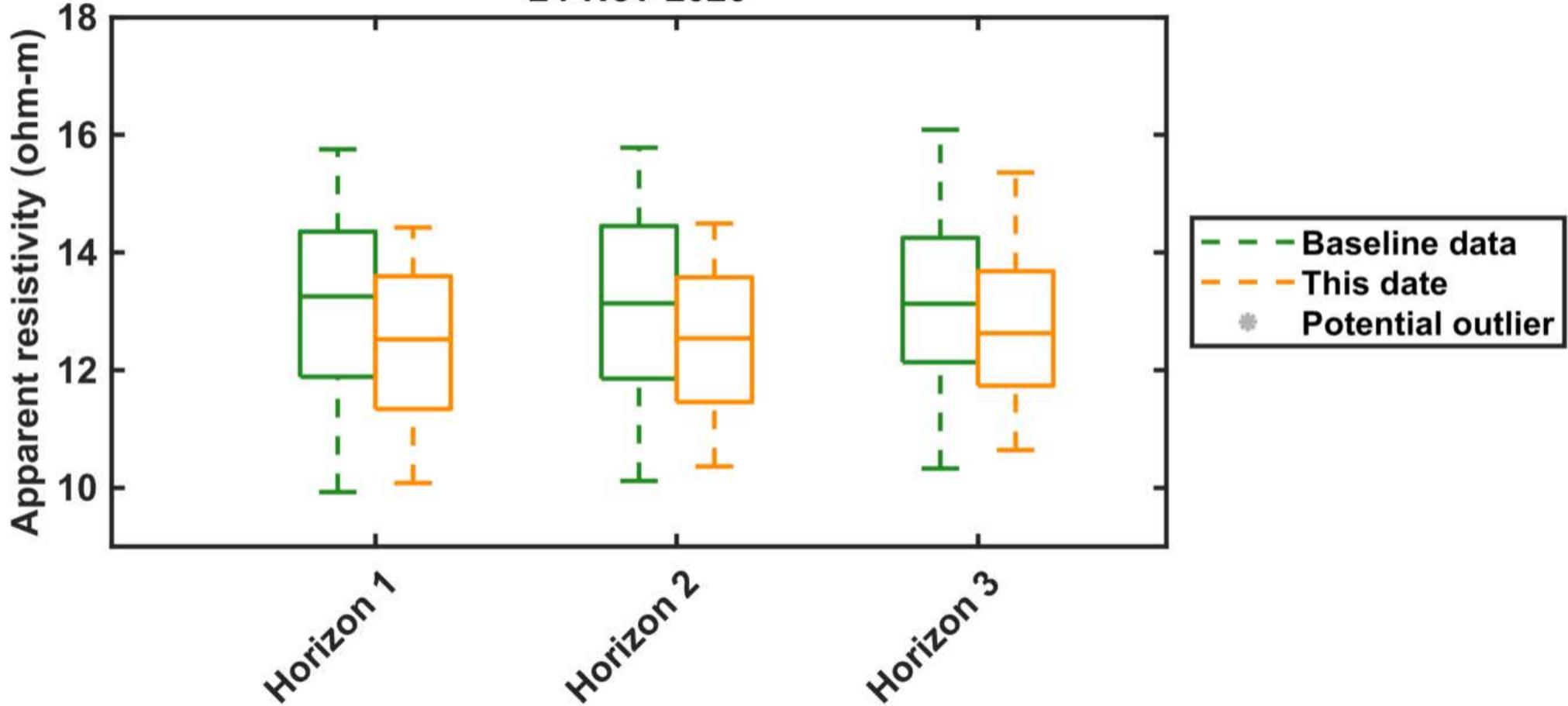
Florence electrical conductivity monitoring

20-Nov-2020



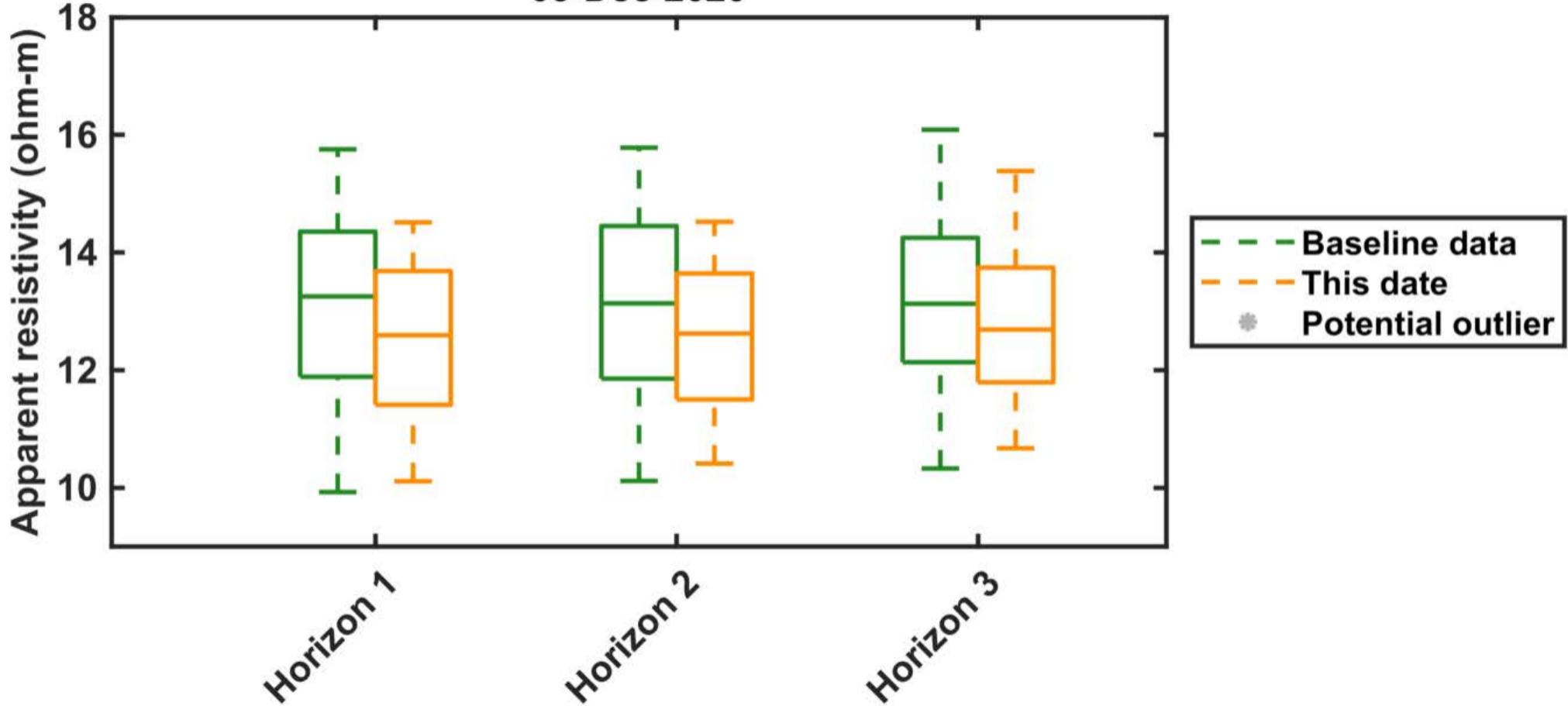
Florence electrical conductivity monitoring

24-Nov-2020



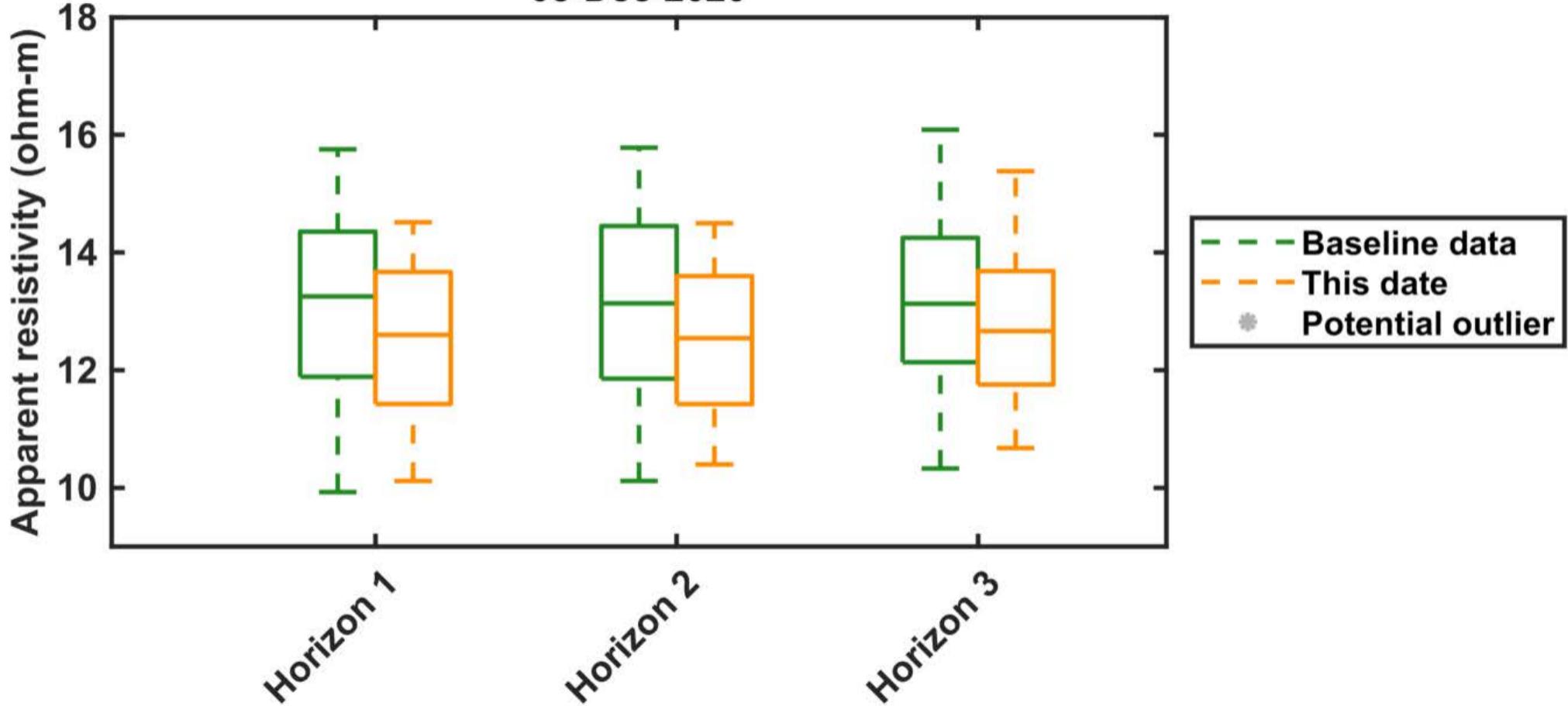
Florence electrical conductivity monitoring

03-Dec-2020



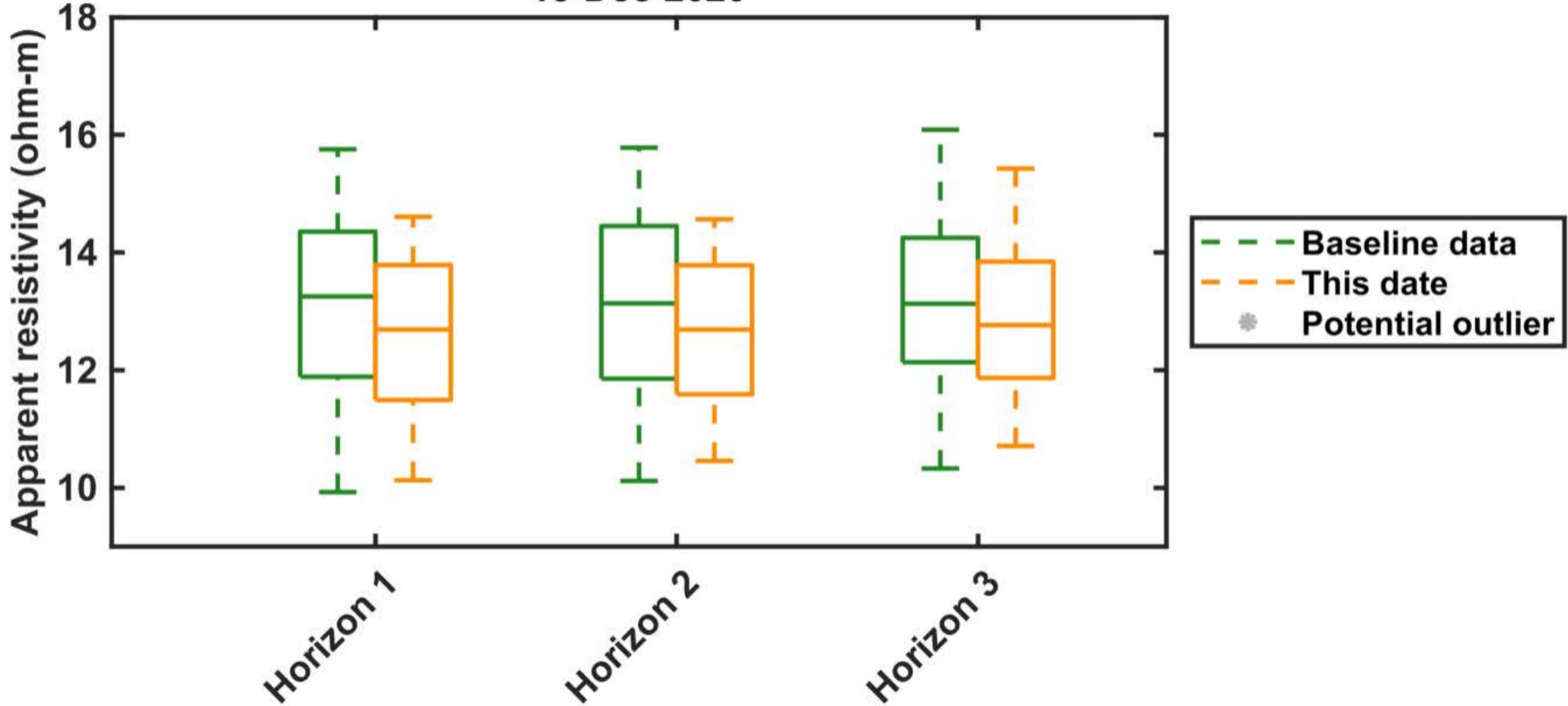
Florence electrical conductivity monitoring

08-Dec-2020



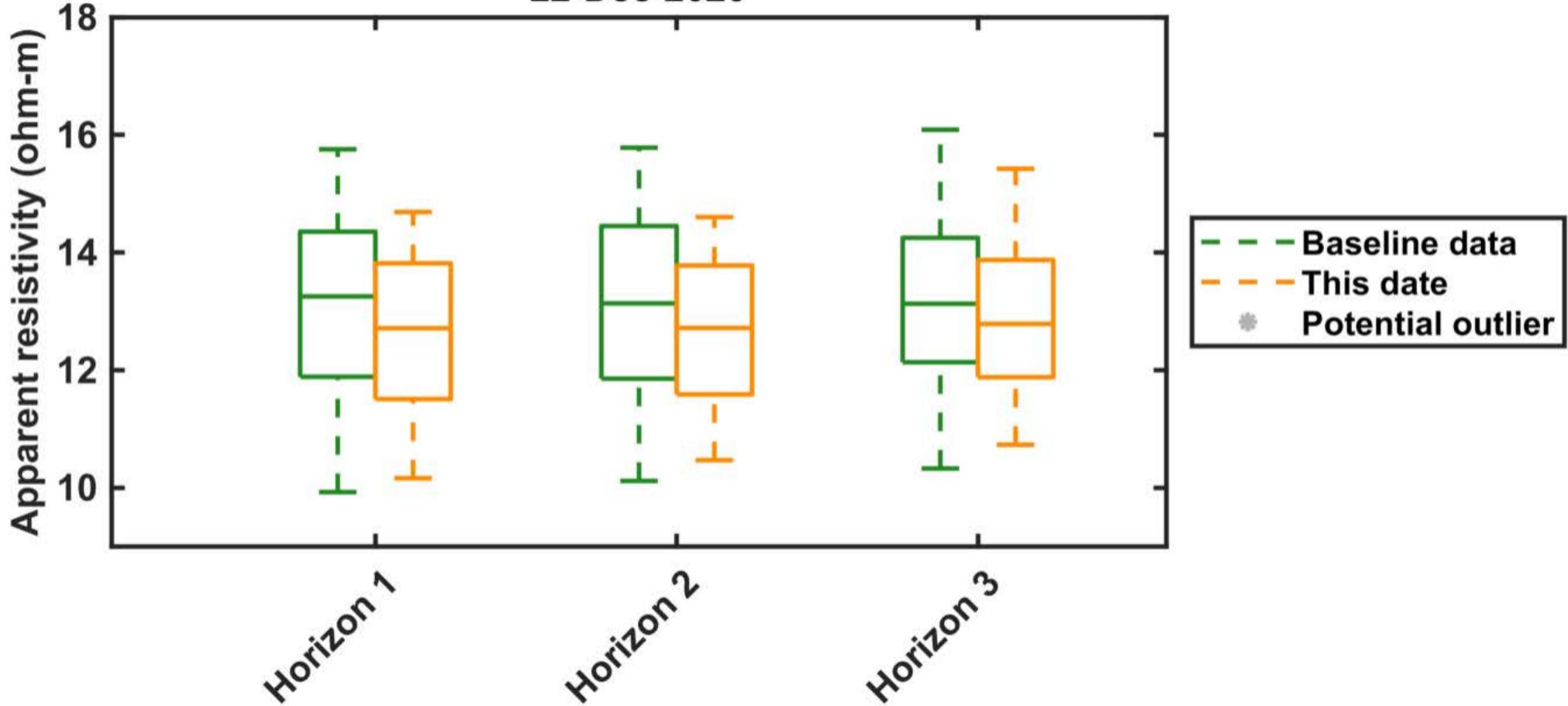
Florence electrical conductivity monitoring

18-Dec-2020



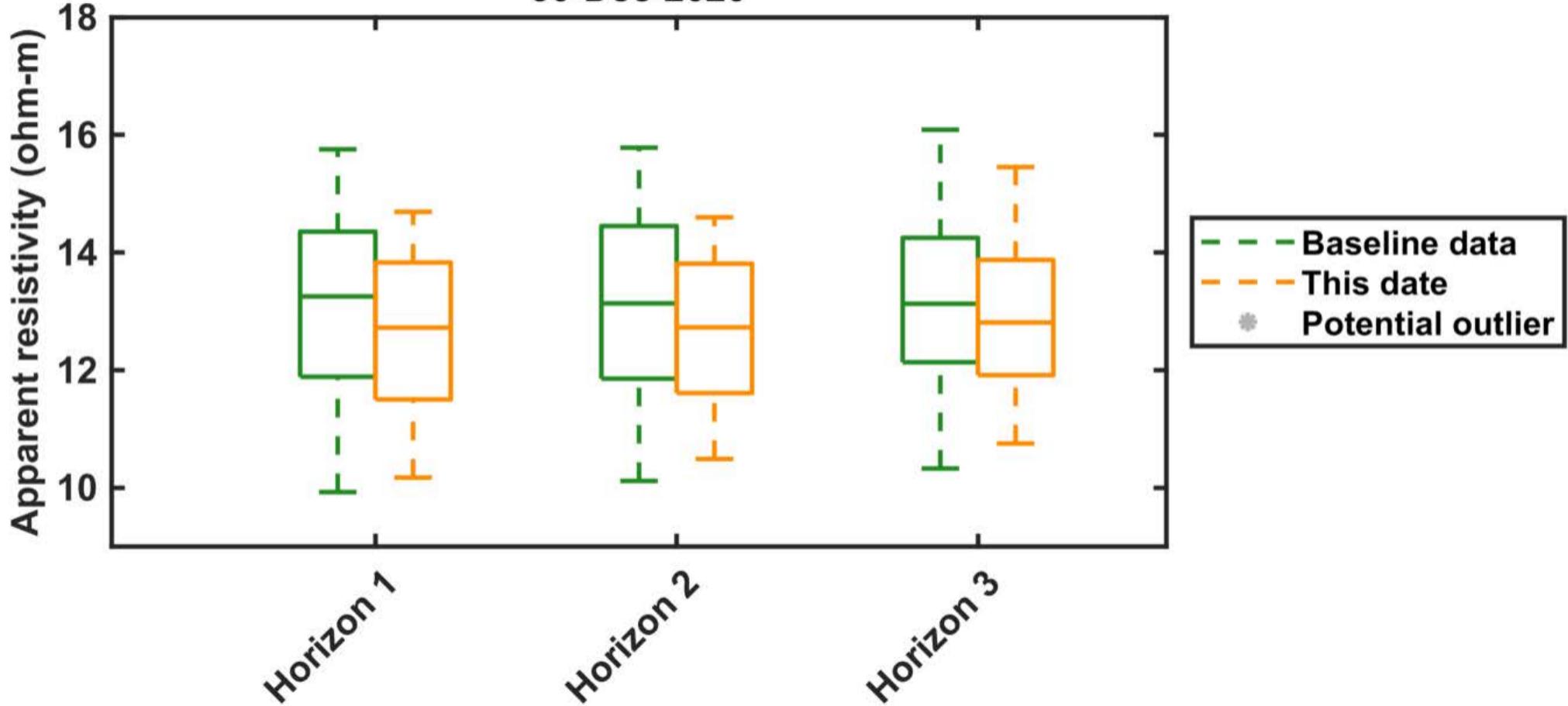
Florence electrical conductivity monitoring

22-Dec-2020



Florence electrical conductivity monitoring

30-Dec-2020

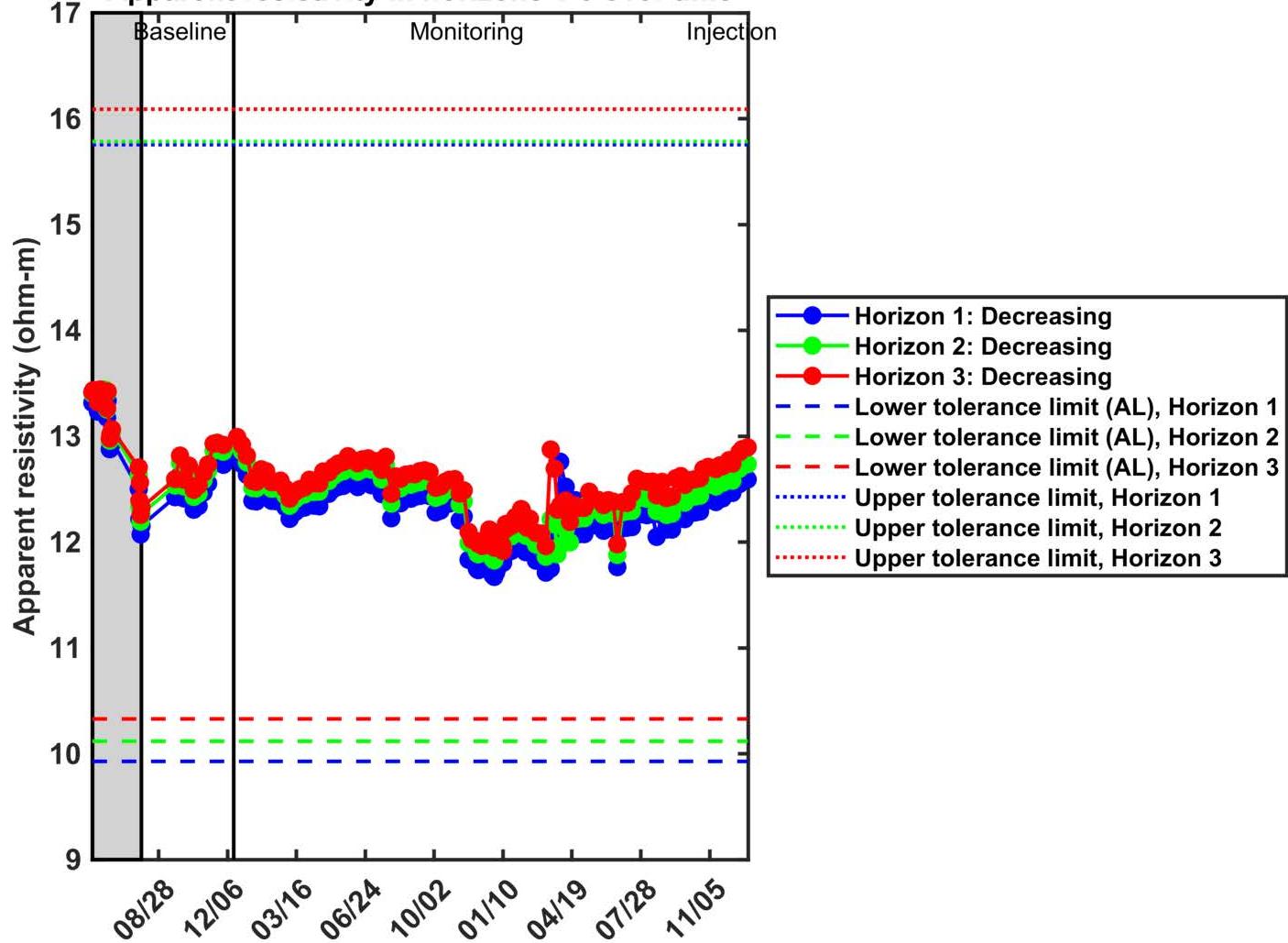


ATTACHMENT B

Summary Plot of Bulk Electrical Conductivity

Florence ambient electrical conductivity monitoring

Apparent resistivity in horizons 1-3 over time



ATTACHMENT 5

Summary of Pressure Transducer and Fracture Gradient Readings

4Q 2020 DAILY WELLHEAD PRESSURES - INJECTION WELLS

Page 1 of 3

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 1. October 2020 Daily Wellhead Pressures - Injection Wells

Date	I-01			I-02			I-03			I-04			Fracture Gradient
	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	
10/1/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.37	16.89	21.08	112.89
10/2/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.78	18.62	21.24	112.89
10/3/2020	1.39	0.00	47.40	0.00	0.00	0.00	0.00	0.00	0.00	19.85	18.66	21.18	112.89
10/4/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.38	18.89	21.92	112.89
10/5/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.45	19.76	22.73	112.89
10/6/2020	0.07	0.00	13.98	0.00	0.00	0.00	0.00	0.00	0.00	20.58	18.17	22.57	112.89
10/7/2020	2.04	0.00	43.58	0.00	0.00	0.00	0.00	0.00	0.00	20.95	18.99	22.88	112.89
10/8/2020	0.05	0.00	13.59	0.00	0.00	0.00	0.00	0.00	0.00	21.81	20.70	22.97	112.89
10/9/2020	0.11	0.00	8.95	0.00	0.00	0.00	0.00	0.00	0.00	21.73	19.56	23.38	112.89
10/10/2020	0.07	0.00	17.05	0.00	0.00	0.00	0.00	0.00	0.00	21.26	18.93	23.23	112.89
10/11/2020	2.12	0.00	14.25	0.00	0.00	0.00	0.00	0.00	0.00	21.35	19.62	23.10	112.89
10/12/2020	0.07	0.00	6.93	0.00	0.00	0.00	0.00	0.00	0.00	22.00	0.00	23.68	112.89
10/13/2020	0.11	0.00	32.05	0.00	0.00	0.00	0.00	0.00	0.00	22.52	20.80	23.72	112.89
10/14/2020	0.03	0.00	7.19	0.00	0.00	0.00	0.00	0.00	0.00	22.88	20.68	24.21	112.89
10/15/2020	0.20	0.00	7.38	0.00	0.00	0.00	0.00	0.00	0.00	23.49	21.47	25.13	112.89
10/16/2020	0.01	0.00	1.60	0.00	0.00	0.00	0.00	0.00	0.00	26.54	22.91	35.19	112.89
10/17/2020	0.00	0.00	1.90	0.00	0.00	0.00	0.00	0.00	0.00	26.17	19.19	54.62	112.89
10/18/2020	0.00	0.00	2.44	0.00	0.00	0.00	0.00	0.00	0.00	27.05	0.00	28.09	112.89
10/19/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.92	25.44	28.36	112.89
10/20/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.26	24.47	28.41	112.89
10/21/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.57	0.00	28.22	112.89
10/22/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.42	24.98	27.79	112.89
10/23/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.42	26.53	29.59	112.89
10/24/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.77	25.35	30.15	112.89
10/25/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.85	25.01	27.67	112.89
10/26/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.14	25.08	27.23	112.89
10/27/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.06	0.00	26.69	112.89
10/28/2020	0.00	0.00	0.07	0.64	0.00	41.99	0.00	0.00	0.00	1.33	0.00	77.88	112.89
10/29/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/30/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/31/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89

Notes:

All measurements in pounds per square inch (psi)

I-04 injection focused on the lower zones, resulting in an increase in pressure.

Calculation of Pressure Allowed at the Wellhead from the Allowed Fracture Gradient

P-Wellhead = P-TOS - P-Col = [P-Frac x D-TOS] - [D-TOS / Conv] Where:

P-Fracture	= Pressure allowed at the top of the injection well screen (TOS)	=	0.65	psi/foot of depth
D-TOS	= Depth to top of injection well screens	=	520	feet
P-TOS	= Total pressure allowed at top of screen = P-Fracture x D-TOS	= 0.65 psi/foot x 520 feet	338	psi
Conv	= Feet of Water per psi	=	2.31	feet/psi
P-Col	= Pressure from weight of water column at TOS	= 520 feet / 2.31 feet/psi	225.11	psi
P-Wellhead	= Allowable pressure at the top of the wellhead = P-TOS - P-Col	= 338 psi - 255.1 psi	112.89	psi

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 2. November 2020 Daily Wellhead Pressures - Injection Wells

Date	I-01			I-02			I-03			I-04			Fracture Gradient
	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	
11/1/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/2/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/3/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.28	0.00	97.32	112.89
11/4/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	112.89
11/5/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/6/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/7/2020	0.09	0.00	26.27	0.02	0.00	6.35	0.01	0.00	2.20	0.02	0.00	4.49	112.89
11/8/2020	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	112.89
11/9/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/10/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/11/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/12/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/13/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/14/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/15/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/16/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.40	0.00	6.98	112.89
11/17/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.60	5.95	8.83	112.89
11/18/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.16	8.02	10.39	112.89
11/19/2020	0.04	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	4.44	0.00	14.10	112.89
11/20/2020	0.05	0.03	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/21/2020	0.06	0.03	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/22/2020	0.05	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/23/2020	0.05	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/24/2020	0.02	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	19.70	16.82	21.18	112.89
11/25/2020	0.02	0.00	0.07	0.00	0.00	0.08	0.00	0.00	0.00	6.56	0.00	21.66	112.89
11/26/2020	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/27/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/28/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/29/2020	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.20	112.89
11/30/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	28.42	0.03	30.79	112.89

Notes:

All measurements in pounds per square inch (psi)

I-04 injection focused on the lower zones, resulting in an increase in pressure.

Calculation of Pressure Allowed at the Wellhead from the Allowed Fracture Gradient

P-Wellhead = P-TOS - P-Col = [P-Frac x D-TOS] - [D-TOS / Conv] Where:

P-Fracture	= Pressure allowed at the top of the injection well screen (TOS)	=	0.65	psi/foot of depth
D-TOS	= Depth to top of injection well screens	=	520	feet
P-TOS	= Total pressure allowed at top of screen = P-Fracture x D-TOS	= 0.65 psi/foot x 520 feet	338	psi
Conv	= Feet of Water per psi	=	2.31	feet/psi
P-Col	= Pressure from weight of water column at TOS	= 520 feet / 2.31 feet/psi	225.11	psi
P-Wellhead	= Allowable pressure at the top of the wellhead = P-TOS - P-Col	= 338 psi - 255.1 psi	112.89	psi

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 3. December 2020 Daily Wellhead Pressures - Injection Wells

Date	I-01			I-02			I-03			I-04			Fracture Gradient
	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	
12/1/2020	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	30.57	29.78	31.23	112.89
12/2/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	32.28	29.97	33.21	112.89
12/3/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	33.25	32.13	33.92	112.89
12/4/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	11.80	4.43	34.94	112.89
12/5/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	8.37	6.42	9.20	112.89
12/6/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	9.74	1.52	11.00	112.89
12/7/2020	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.01	1.10	0.00	11.77	112.89
12/8/2020	0.02	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/9/2020	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/10/2020	0.00	0.00	0.04	0.00	0.00	0.00	0.01	0.00	0.03	0.00	0.00	0.00	112.89
12/11/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/12/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/13/2020	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/14/2020	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/15/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/16/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/17/2020	0.01	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/18/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/19/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/20/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/21/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	112.89
12/22/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	112.89
12/23/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/24/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/25/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	112.89
12/26/2020	0.01	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	112.89
12/27/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.01	0.00	0.03	0.00	0.00	0.00	112.89
12/28/2020	0.01	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/29/2020	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/30/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89
12/31/2020	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	112.89

Notes:

All measurements in pounds per square inch (psi)

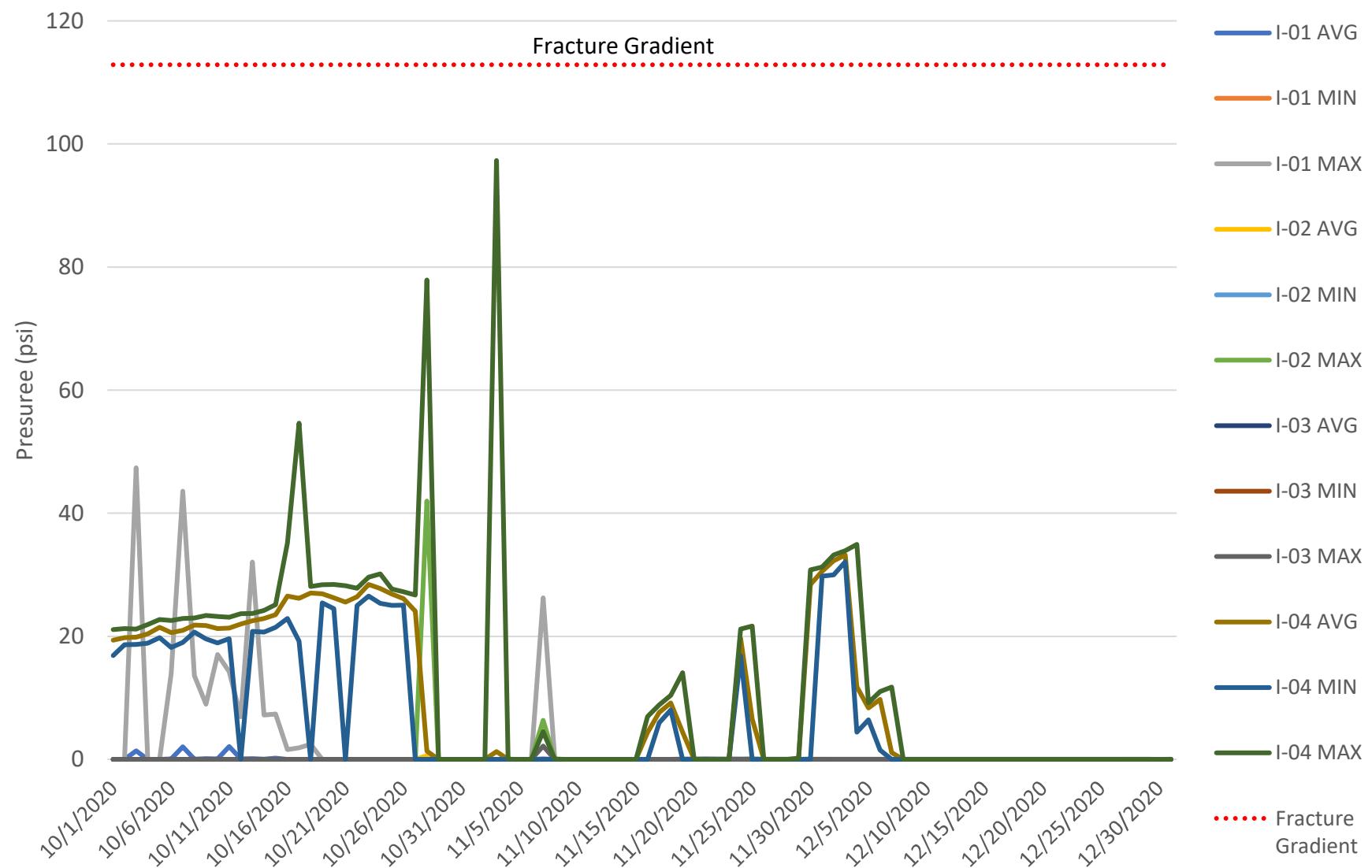
I-04 injection focused on the lower zones, resulting in an increase in pressure.

Calculation of Pressure Allowed at the Wellhead from the Allowed Fracture Gradient

P-Wellhead = P-TOS - P-Col = [P-Frac x D-TOS] - [D-TOS / Conv] Where:

P-Fracture	= Pressure allowed at the top of the injection well screen (TOS)	=	0.65	psi/foot of depth
D-TOS	= Depth to top of injection well screens	=	520	feet
P-TOS	= Total pressure allowed at top of screen = P-Fracture x D-TOS	= 0.65 psi/foot x 520 feet	338	psi
Conv	= Feet of Water per psi	=	2.31	feet/psi
P-Col	= Pressure from weight of water column at TOS	= 520 feet / 2.31 feet/psi	225.11	psi
P-Wellhead	= Allowable pressure at the top of the wellhead = P-TOS - P-Col	= 338 psi - 255.1 psi	112.89	psi

Figure 1. Daily Wellhead Pressures - Injection Wells



Note: Daily wellhead pressures at the injection wells can shift based on changes in flow rate to an individual well and/or a focus on specific zones of the formation.

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 4. October 2020 Daily Casing Annulus Pressures - Injection Wells

Date	I-01			I-02			I-03			I-04			Fracture Gradient
	Avg	Min	Max										
10/1/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/2/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/3/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/4/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/5/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/6/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/7/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/8/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/9/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/10/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/11/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/12/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/13/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/14/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/15/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/16/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/17/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/18/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/19/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/20/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/21/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/22/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/23/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/24/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/25/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/26/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/27/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/28/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/29/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/30/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
10/31/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89

Notes:

All measurements in pounds per square inch (psi)

There were no casing annulus pressures >0 during the Q4 2020

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 5. November 2020 Daily Casing Annulus Pressures - Injection Wells

Date	I-01			I-02			I-03			I-04			Fracture Gradient
	Avg	Min	Max										
11/1/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/2/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/3/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/4/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/5/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/6/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/7/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/8/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/9/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/10/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/11/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/12/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/13/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/14/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/15/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/16/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/17/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/18/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/19/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/20/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/21/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/22/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/23/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/24/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/25/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/26/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/27/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/28/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/29/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
11/30/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89

Notes:

All measurements in pounds per square inch (psi)

There were no casing annulus pressures >0 during the Q4 2020

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 6. December 2020 Daily Casing Annulus Pressures - Injection Wells

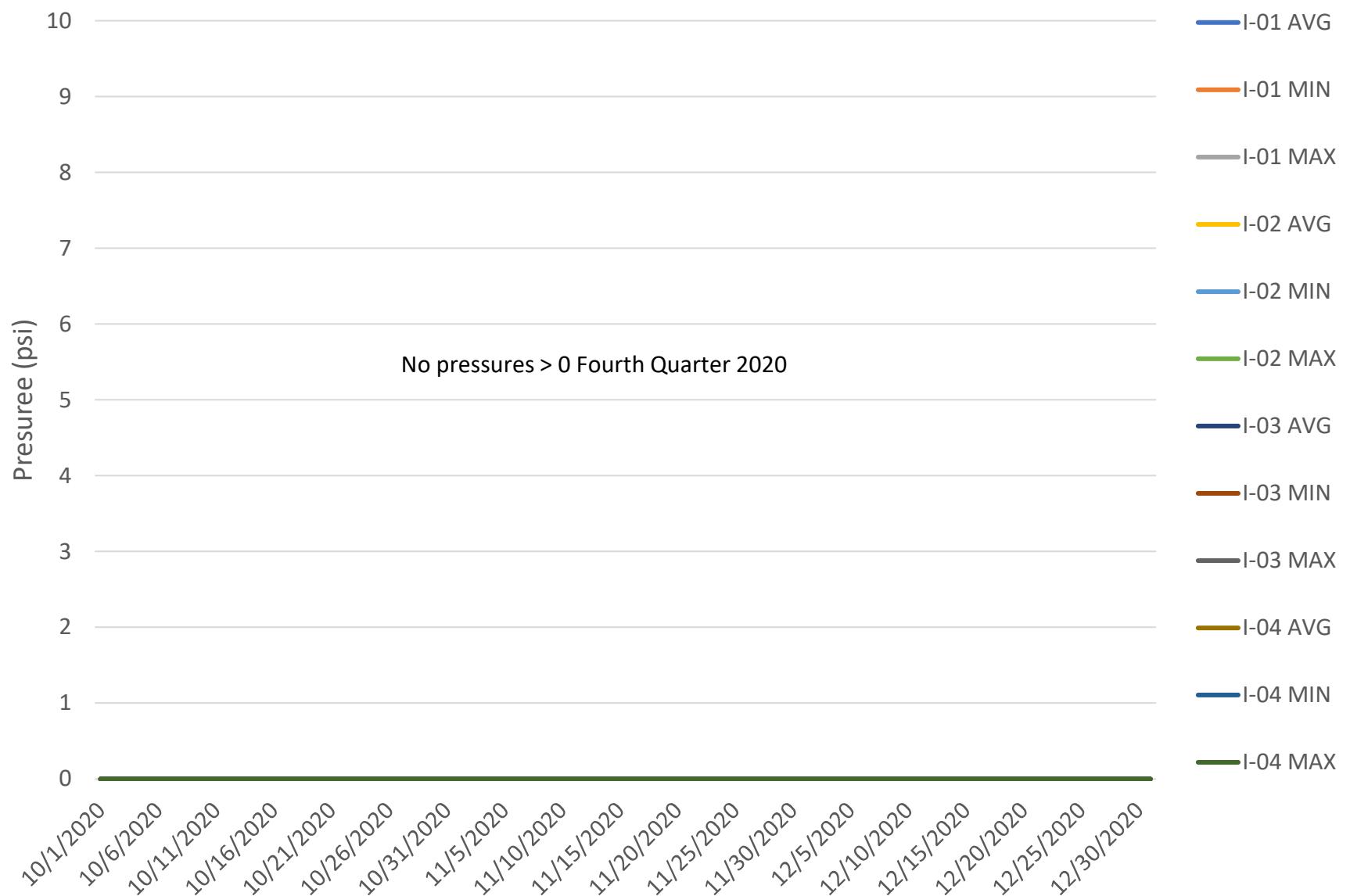
Date	I-01			I-02			I-03			I-04			Fracture Gradient
	Avg	Min	Max										
12/1/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/2/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/3/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/4/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/5/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/6/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/7/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/8/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/9/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/10/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/11/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/12/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/13/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/14/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/15/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/16/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/17/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/18/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/19/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/20/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/21/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/22/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/23/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/24/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/25/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/26/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/27/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/28/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/29/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/30/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89
12/31/2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	112.89

Notes:

All measurements in pounds per square inch (psi)

There were no casing annulus pressures >0 during the Q4 2020

Figure 2. Daily Casing Annulus Pressures - Injection Wells



ATTACHMENT 6

Graphical Representation of Fluid Electrical Conductivity Readings from Injection and Observations Wells

INJECTION AND OBSERVATION WELLS

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 1. October 2020 Daily Fluid Electrical Conductivity Readings

Date	I-01	I-02	I-03	I-04	O-01	O-02	O-03	O-04	O-05	O-06	O-07
10/1/2020	11806	11754	11409	11425	6268	4721	9529	4316	3264	8969	6195
10/2/2020	11580	11626	11614	11568	7010	4767	9431	4326	3243	9134	6300
10/3/2020	11307	11340	11296	11078	7168	6092	ND	4373	3184	8836	6198
10/4/2020	ND	ND	ND	ND	7096	4621	9101	4442	3196	8937	6224
10/5/2020	11480	11811	11768	11656	6132	5793	ND	4467	3302	9030	6250
10/6/2020	11414	11745	11765	11725	7024	5154	9182	4805	3286	9235	6104
10/7/2020	11864	12047	12081	11985	6769	7743	9467	5070	3348	8920	5211
10/8/2020	10922	10953	10813	11200	6735	8260	9380	4213	2988	8861	5108
10/9/2020	10959	11285	11385	11337	6418	8861	9125	3816	2934	8622	5215
10/10/2020	11538	11558	11885	11755	6322	9155	9536	5711	3105	9011	5521
10/11/2020	ND	ND	ND	ND	6068	8416	ND	ND	3169	9018	5698
10/12/2020	11303	11329	11399	11335	5566	7860	8821	5763	3046	8661	5497
10/13/2020	11691	11853	11866	11674	5749	8072	9003	5749	3168	8967	5783
10/14/2020	11144	11525	11536	11555	5871	7843	8937	5891	3046	8966	5742
10/15/2020	10944	11317	11128	11225	5524	8472	8982	5758	3124	8809	5670
10/16/2020	10850	11020	10967	10940	5430	9369	9168	2474	3246	8852	5767
10/17/2020	10046	10985	10988	10920	5193	8972	8912	5557	3136	8614	5804
10/18/2020	10984	10895	10893	10963	5112	8653	8406	5343	3043	8590	5782
10/19/2020	10984	10895	10893	10963	5040	8637	8567	5319	3072	8648	5910
10/20/2020	11420	11431	11421	11422	5215	9180	8539	5669	3193	8872	6263
10/21/2020	11603	11842	11846	11867	5415	9054	8723	5602	3198	9006	6392
10/22/2020	11900	11940	11968	11962	5232	9162	8865	5925	3186	8994	6642
10/23/2020	11514	11624	11585	11617	5080	9103	8515	5614	3088	8839	6466
10/24/2020	11838	12116	11770	11843	5600	10265	9354	6212	3556	9453	6765
10/25/2020	10863	11085	11183	11067	6228	9577	3967	5556	3420	8696	6406
10/26/2020	11034	11185	11144	11204	6523	8789	8029	5379	3035	8179	6021
10/27/2020	10974	11123	10942	11129	6860	9093	8394	5618	2977	8102	7866
10/28/2020	11310	11318	11313	11314	6754	9175	8061	5481	2853	8496	7895
10/29/2020	6743	6748	6705	6725	6415	9173	8250	5365	3146	8536	7660
10/30/2020	6533	6534	6529	6528	7745	8673	8286	5324	2876	8377	4405
10/31/2020	6643	6638	6610	6591	7050	8778	8512	2749	2904	8431	5078

Notes:

All measurements in microsemens per centimeter (μS/cm)

ND = No data available

10/3/20 - O-03 was out of service

10/4/20 - No sample collected from the injection wells

10/5/20 - O-03 was out of service

10/11/20 - O-03 and O-04 were out of service and no samples were collected from the injection wells

INJECTION AND OBSERVATION WELLS

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 2. November 2020 Daily Fluid Electrical Conductivity Readings

Date	I-01	I-02	I-03	I-04	O-01	O-02	O-03	O-04	O-05	O-06	O-07
11/1/2020	6636	6561	6650	6738	7070	7022	8279	5438	2565	8669	5667
11/2/2020	6170	6055	6042	6071	7460	8238	9104	5928	2892	9368	6407
11/3/2020	6229	6088	6075	6122	6520	7143	8409	5429	2731	6685	5986
11/4/2020	5909	6072	6085	6086	7297	8031	9025	5931	2945	9494	6428
11/5/2020	5781	6090	6086	6085	6520	7143	8409	5429	2731	6685	5986
11/6/2020	5454	5806	5802	5796	6379	7725	5581	8531	2758	6496	5778
11/7/2020	6189	6173	6201	6133	6597	7969	8554	4985	2892	6784	5717
11/8/2020	5984	6008	5973	6018	6407	7710	8465	5847	2841	ND	5919
11/9/2020	6445	6475	6461	6451	6398	7684	8756	5634	2984	ND	5725
11/10/2020	6745	6700	6661	6658	6335	7358	7777	5548	2628	ND	6424
11/11/2020	7124	7181	7128	7089	6065	7465	9011	5396	2622	5779	ND
11/12/2020	7126	7125	7117	7003	6575	7691	9236	5645	2781	6228	6484
11/13/2020	6581	6349	6391	6445	6574	7519	8974	5448	2622	6203	4515
11/14/2020	6632	6438	6471	6501	ND	7008	8778	5350	2478	4734	4099
11/15/2020	6833	6794	6783	6791	ND	7241	8727	5322	2694	5113	4241
11/16/2020	5957	6094	6088	6110	ND	7095	8748	5663	2578	5931	3911
11/17/2020	ND	6165	6123	6135	ND	7123	8608	5245	2656	3722	4307
11/18/2020	ND	6771	6406	6352	6790	7578	7713	5691	4007	6254	1920
11/19/2020	ND	5710	5607	5630	6885	7583	8436	5850	4814	6208	1708
11/20/2020	5339	5689	5448	5557	6417	7477	7935	3998	4603	5031	1666
11/21/2020	5379	5431	5333	5388	6422	7526	7549	5877	2393	7788	1778
11/22/2020	5468	5373	5397	5421	6410	7217	8114	6064	2692	7628	2095
11/23/2020	6254	6030	6215	6159	6595	7406	7657	5859	2701	7842	1989
11/24/2020	6068	ND	6006	5991	5962	6951	7936	5879	2263	4958	1738
11/25/2020	5488	ND	5501	5588	6118	6859	7354	5522	2630	5795	1712
11/26/2020	5743	5735	5694	5710	5382	6035	7473	5612	2069	5545	3524
11/27/2020	6251	6179	6166	6146	5322	6512	7835	5451	1953	5435	2980
11/28/2020	6185	6188	6126	6183	5220	7060	5144	5192	1708	5160	3821
11/29/2020	6131	6094	6105	6128	5045	7320	7074	5502	1830	5206	4245
11/30/2020	6548	6490	6758	6773	4918	7873	7609	5174	1842	5512	4476

Notes:

All measurements in microsemens per centimeter (uS/cm)

ND = No data available

11/8/20 - 11/10/20 - O-06 was out of service to repair bladder pump

11/11/20 - O-07 was down for bladder pump repair

11/14/20 - 11/17/20 - O-01 was down for re-development

11/17/20 - 11/19/20 - I-01 was down for MIT

11/24/20 - 11/25/20 - I-02 was down for MIT

INJECTION AND OBSERVATION WELLS

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 3. December 2020 Daily Fluid Electrical Conductivity Readings

Date	I-01	I-02	I-03	I-04	O-01	O-02	O-03	O-04	O-05	O-06	O-07
12/1/2020	6397	6501	ND	6557	5215	7943	8073	5644	1950	5530	4826
12/2/2020	6335	6447	ND	6430	5030	8007	8052	3269	1871	4791	4730
12/3/2020	6526	6335	ND	6354	5234	8163	6785	4276	1756	4437	5643
12/4/2020	6690	6493	ND	6436	5066	3570	5052	7640	3145	7619	6418
12/5/2020	6180	3921	6515	6409	5007	4738	7552	3942	4460	7970	4536
12/6/2020	6005	6058	6130	6135	5032	8450	3491	3949	4182	7279	6140
12/7/2020	6691	6723	6724	6712	4998	7746	7724	5263	4010	7566	6053
12/8/2020	6414	7106	6610	ND	4749	7846	7297	5954	2842	7768	2419
12/9/2020	6317	6383	6541	ND	4830	7815	8044	5854	2438	6375	3356
12/10/2020	6324	6368	6573	ND	4803	7866	7578	5635	2389	4490	4985
12/11/2020	5835	6005	5981	5907	4858	7401	5634	7801	2631	3389	4829
12/12/2020	6032	6165	6140	6180	4870	7978	7332	5248	2601	3455	4235
12/13/2020	6216	6353	6333	6375	5020	8234	7400	5250	2629	3338	4561
12/14/2020	6278	6345	6314	6233	4828	7753	7390	5234	2760	3020	4712
12/15/2020	6317	6428	6395	6389	5010	7818	7359	5138	2826	2980	4511
12/16/2020	6609	6677	6530	6823	4936	8039	7930	5618	2871	2958	4915
12/17/2020	6396	6316	6499	6444	5091	7978	8185	5607	2887	2903	4725
12/18/2020	7170	7101	7156	7170	4983	7556	8118	ND	2706	2871	4879
12/19/2020	6315	6839	6823	6862	4928	7657	8220	ND	2831	3142	4988
12/20/2020	7272	7151	7135	7089	4944	7639	8277	2328	2882	3270	4838
12/21/2020	6945	7125	7014	7035	5176	8042	8456	2390	2890	3424	5160
12/22/2020	6404	6295	2793	6242	5209	8105	7750	2364	2872	3375	5188
12/23/2020	7186	6883	7189	7161	4929	7733	7572	2191	2778	3126	4952
12/24/2020	7417	7208	7286	7277	4793	7824	7939	2195	2749	3118	5012
12/25/2020	7470	7414	7437	7440	4968	7936	7985	2216	2657	3296	5232
12/26/2020	6978	4942	6890	6958	5173	8214	8299	2310	2962	3449	5433
12/27/2020	6888	6958	3474	6999	5222	7764	8465	2301	2913	3402	5301
12/28/2020	6978	4942	6890	6958	5210	7969	7593	2290	3235	3419	6156
12/29/2020	7156	6985	7141	7026	5266	8081	7588	2324	2943	3420	5546
12/30/2020	6775	6795	6738	6713	5112	8295	7725	2300	2948	3375	5480
12/31/2020	7039	7045	7128	7131	5238	7461	6912	1995	2730	3150	5137

Notes:

All measurements in microsemens per centimeter ($\mu\text{s}/\text{cm}$)

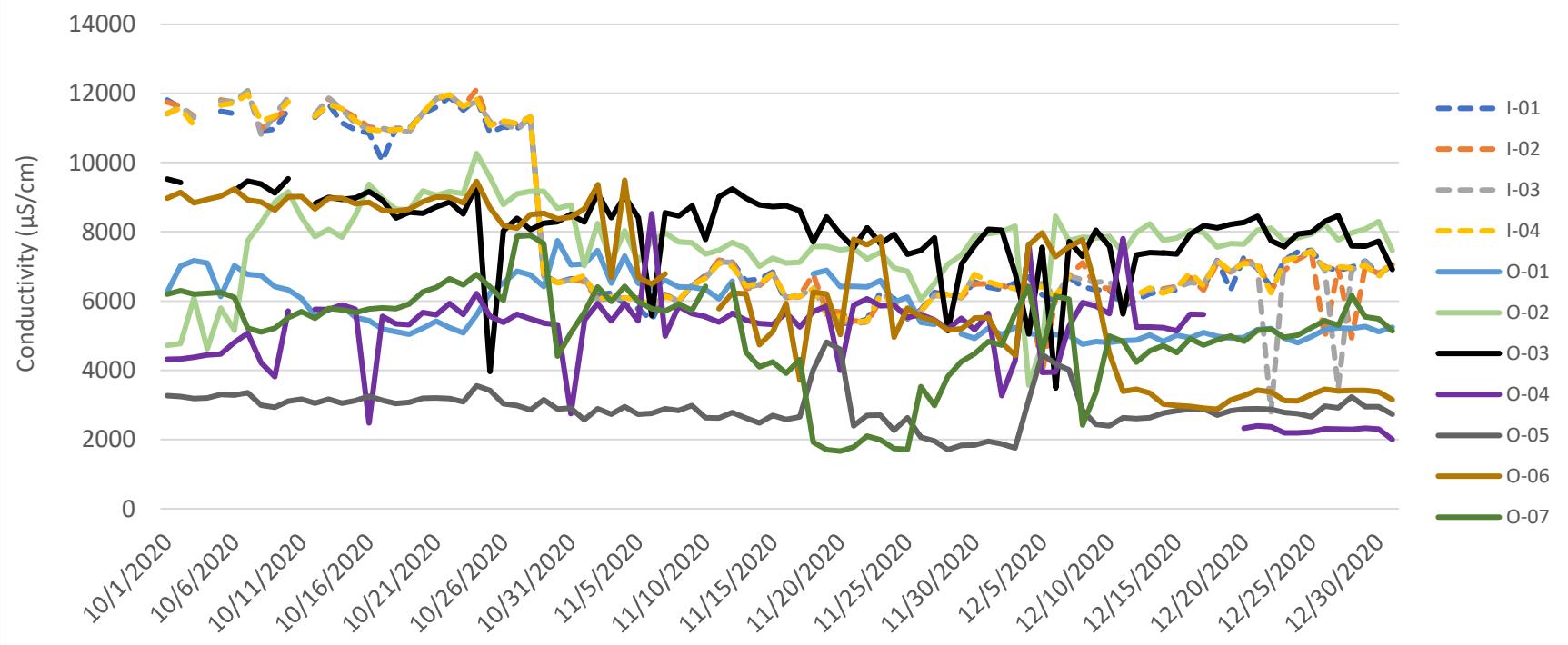
ND = No data available

12/1/20 - 12/4/20 - I-03 was down for MIT

12/8/20 - 12/10/20 - I-04 was down for MIT

12/18/20 - 12/19/20 - O-04 was out down for bladder pump repairs

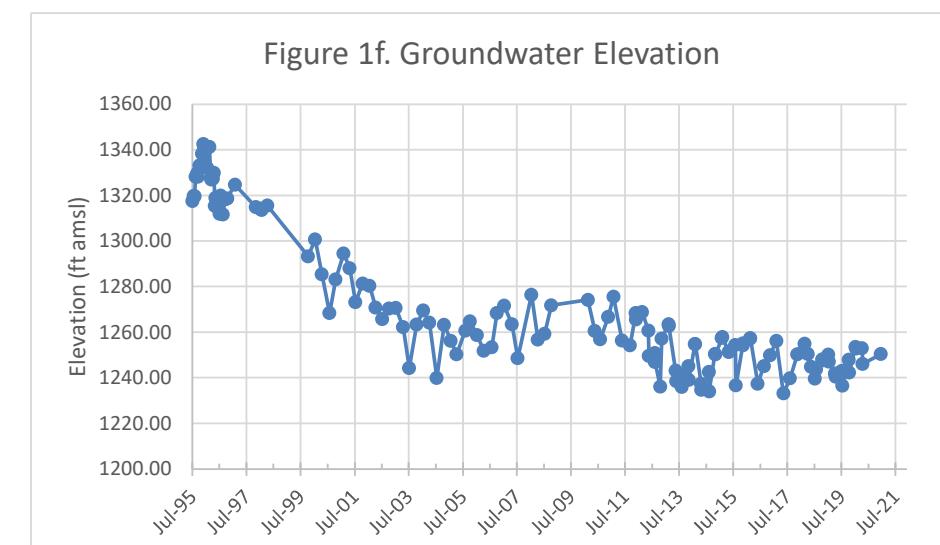
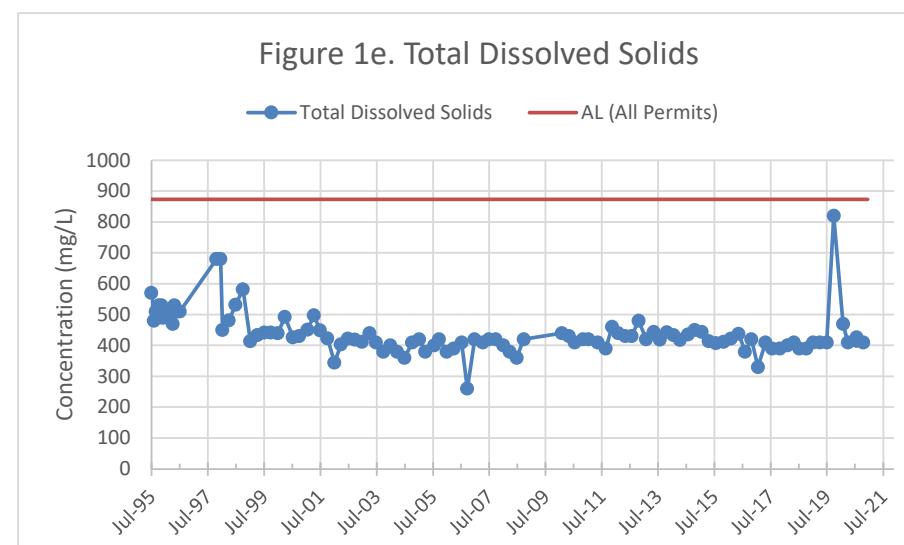
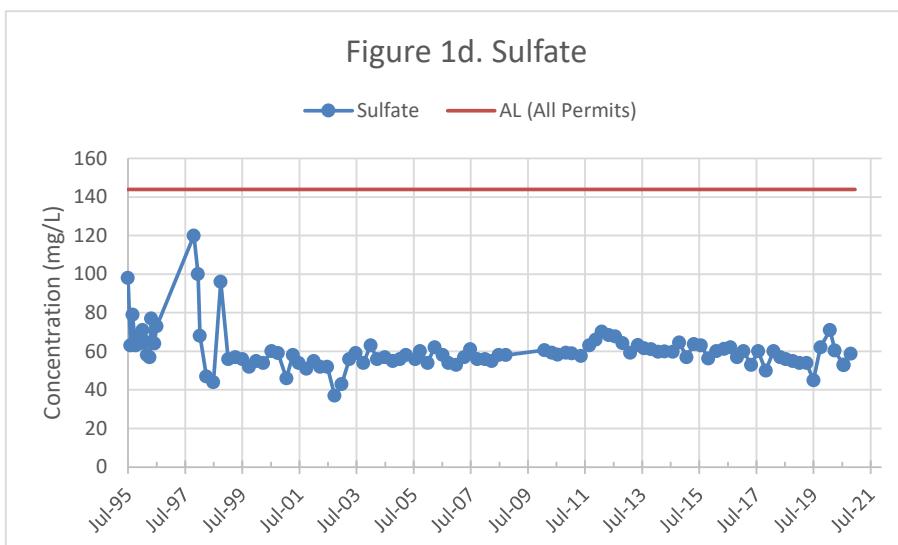
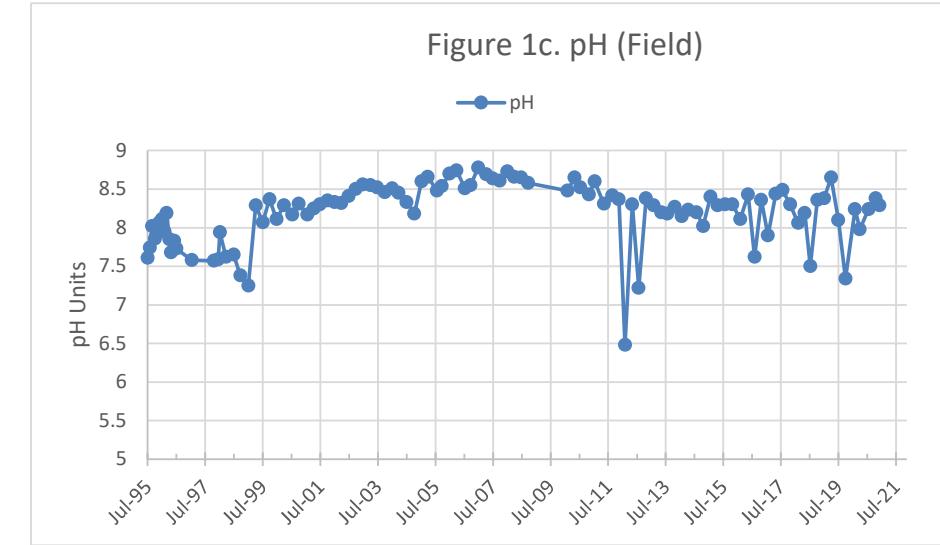
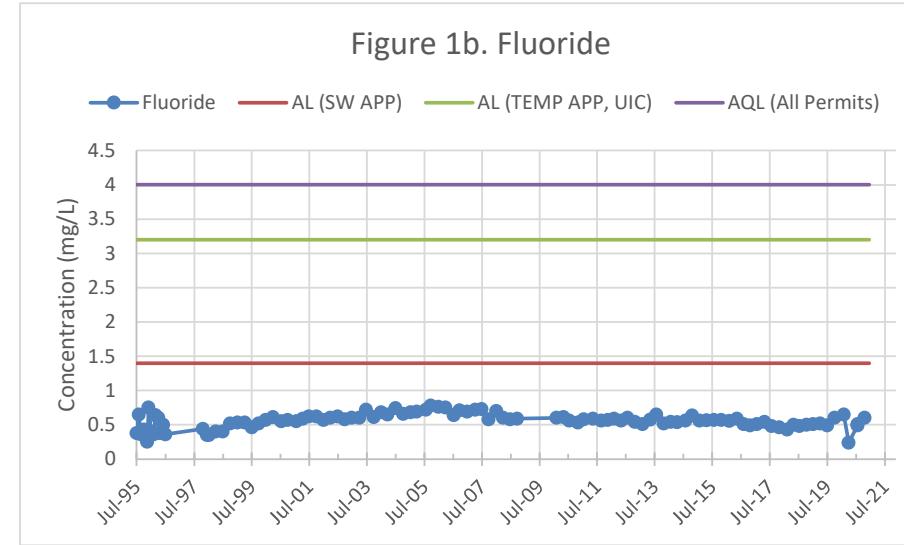
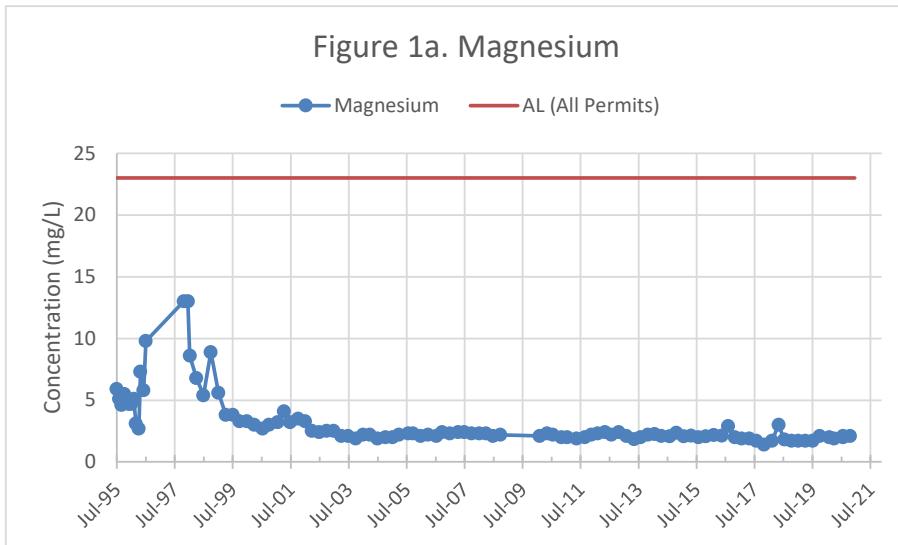
Figure 1. Daily Fluid Electrical Conductivity in Injection and Observation Wells



ATTACHMENT 7

Time versus Concentration Plots of Select Groundwater Parameters

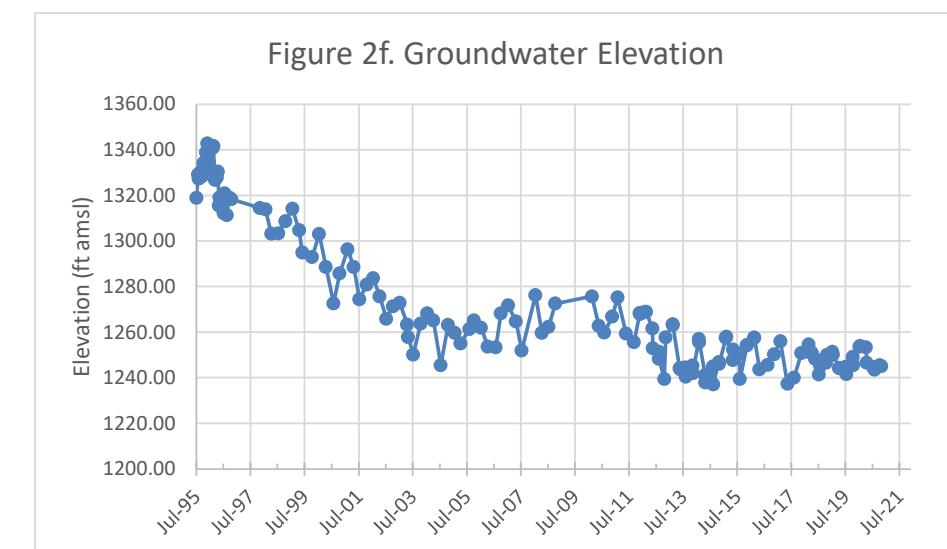
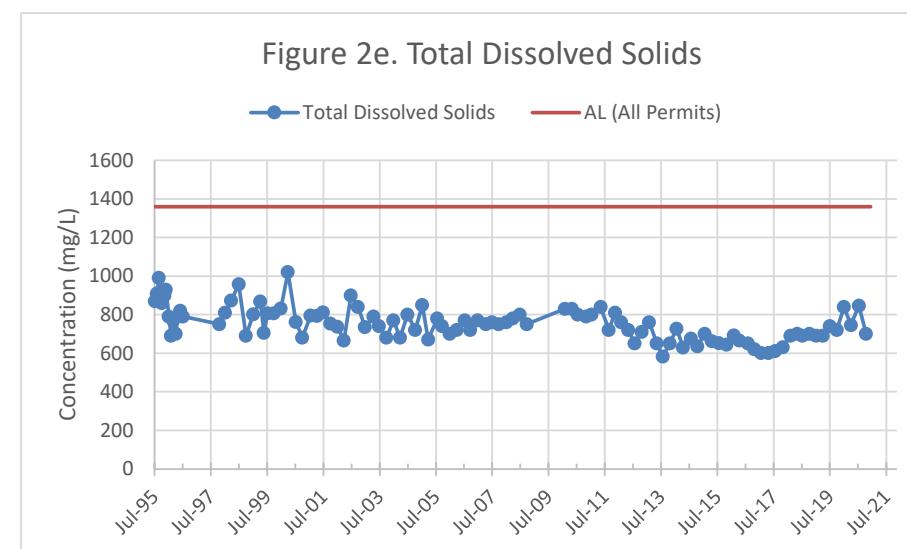
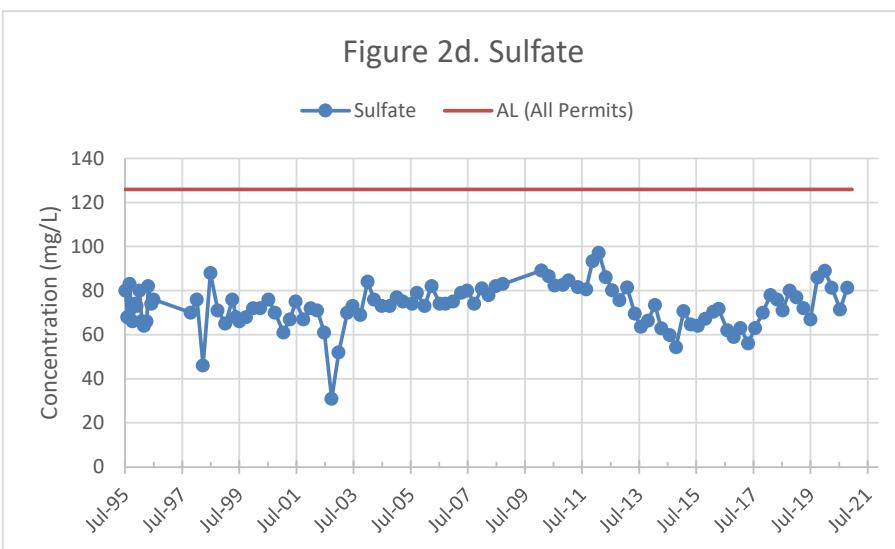
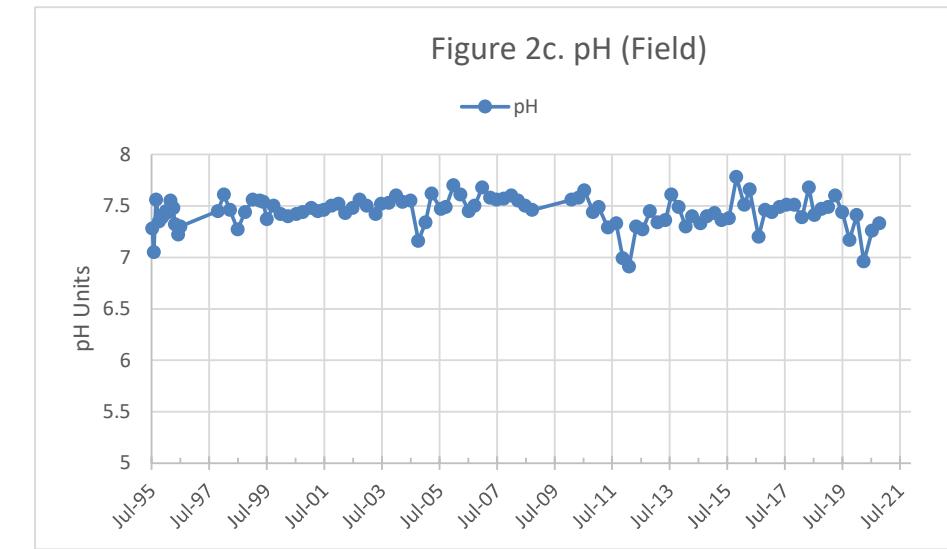
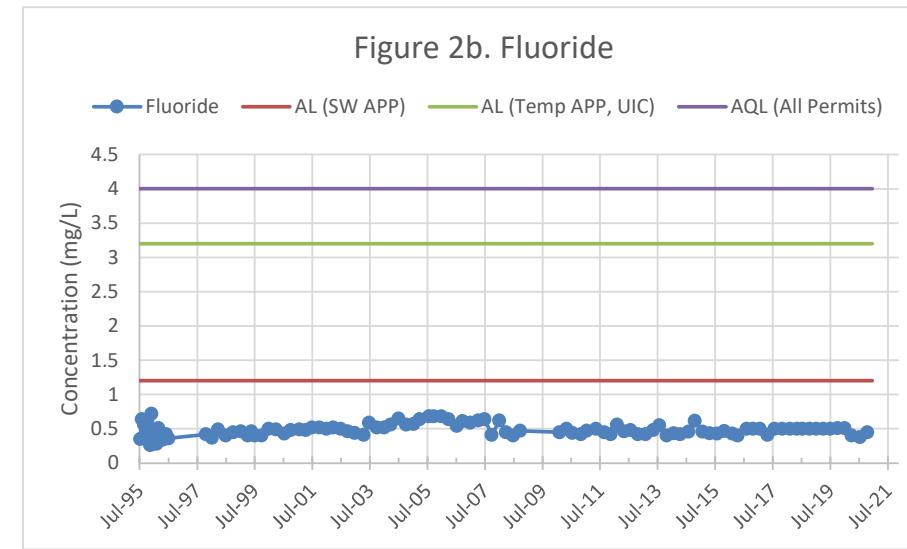
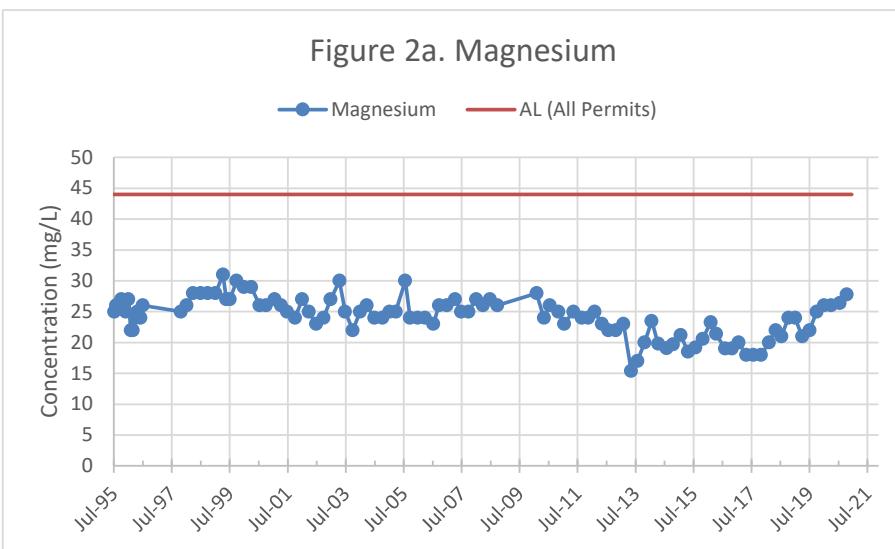
M14-GL QUARTERLY CONCENTRATION GRAPHS



Notes:

AL = Alert level
 APP = Aquifer Protection Permit
 AQL = Aquifer Quality Limit
 All Permits = SW APP, Temp APP, and UIC
 SW APP = Sitewide APP No. P-101704
 Temp APP = Temporary APP No P-106360
 UIC = Underground Injection Control
 UIC = UIC Permit No. R9UIC-AZ3-FY11-1

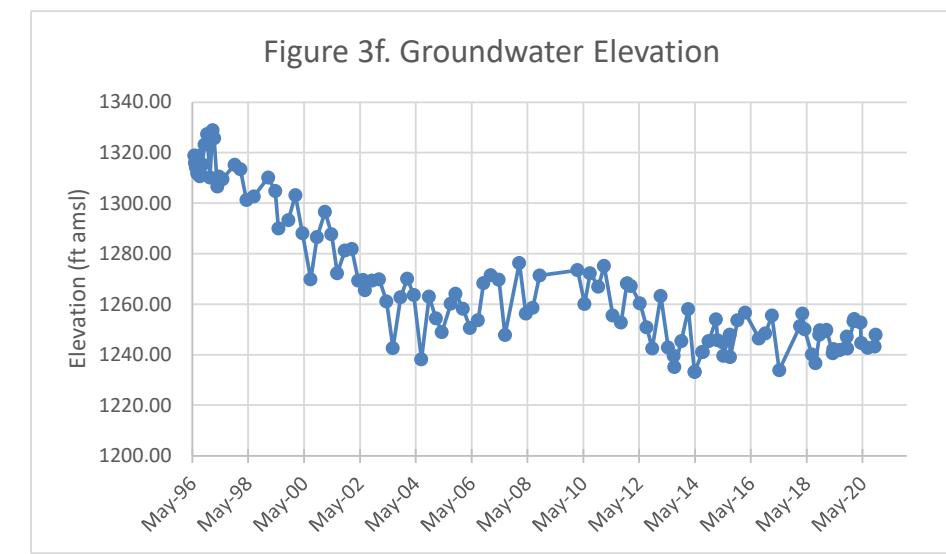
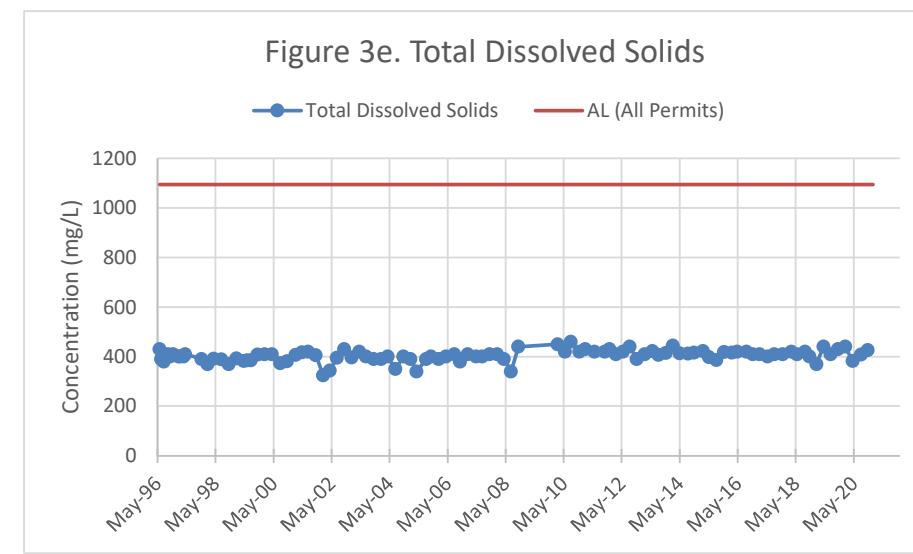
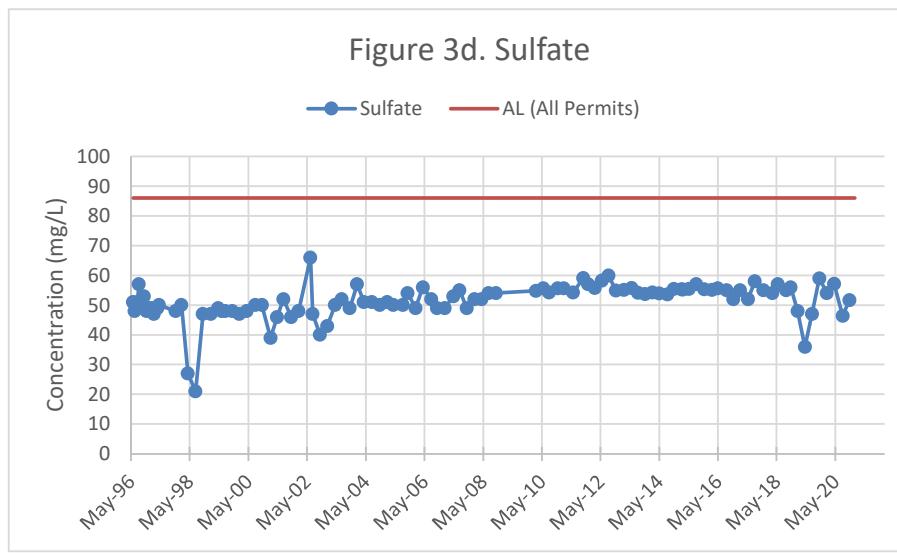
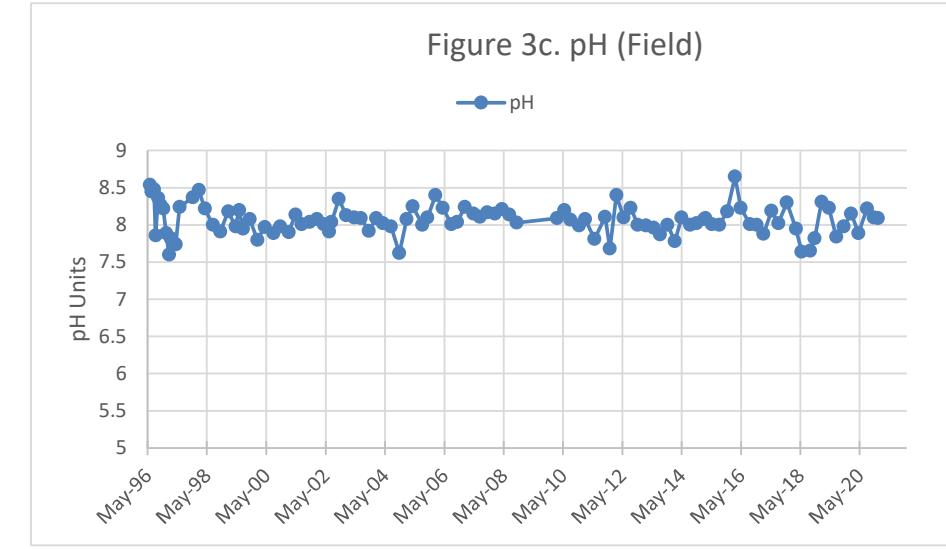
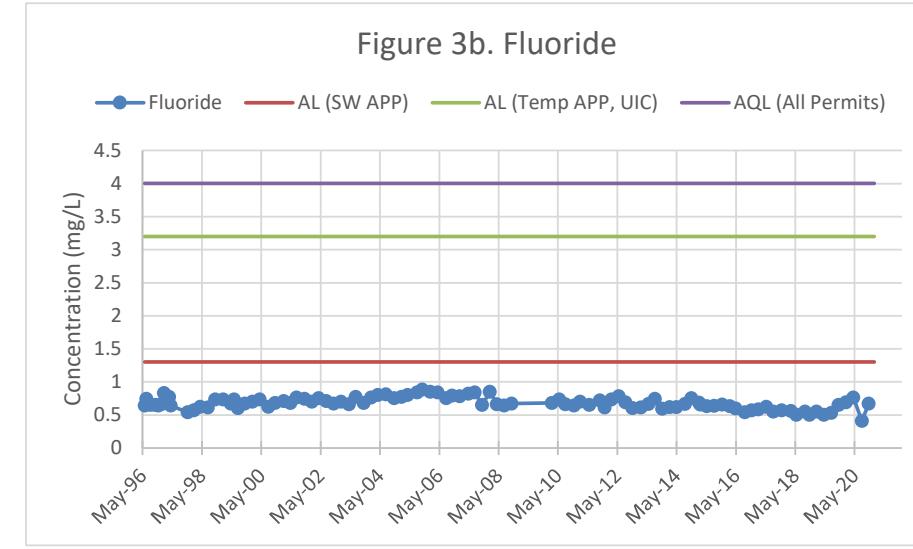
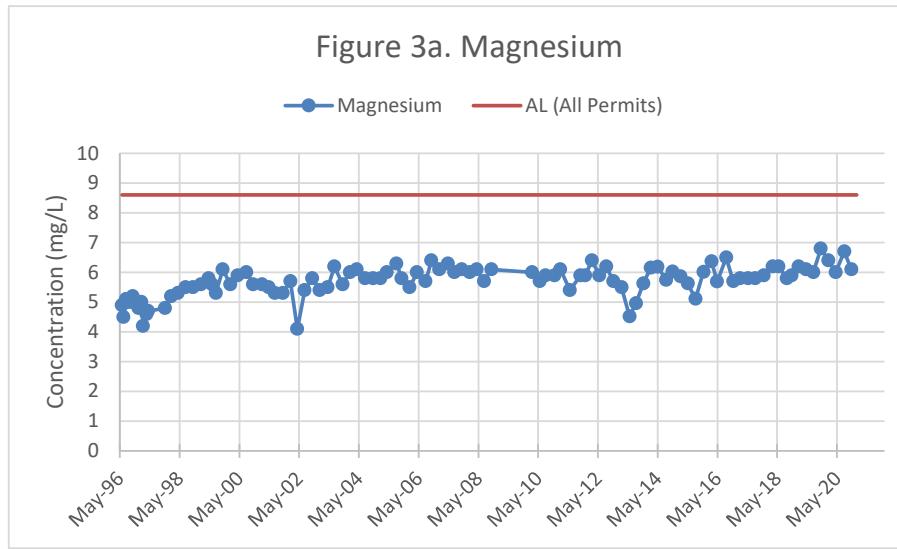
M15-GU QUARTERLY CONCENTRATION GRAPHS



Notes:

AL = Alert level
 APP = Aquifer Protection Permit
 AQL = Aquifer Quality Limit
 All Permits = SW APP, Temp APP, and UIC
 SW APP = Sitewide APP No. P-101704
 Temp APP = Temporary APP No P-106360
 UIC = Underground Injection Control
 UIC = UIC Permit No. R9UIC-AZ3-FY11-1

M22-O QUARTERLY CONCENTRATION GRAPHS



Notes:

Historical outliers removed from graphs for visual representation, but are maintained in the dataset.

AL = Alert level

APP = Aquifer Protection Permit

AQL = Aquifer Quality Limit

All Permits = SW APP, Temp APP, and UIC

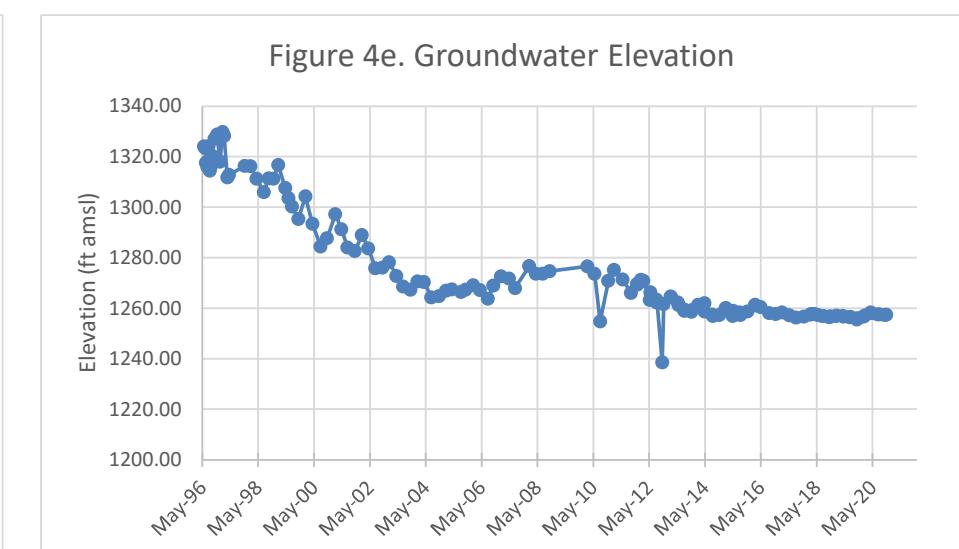
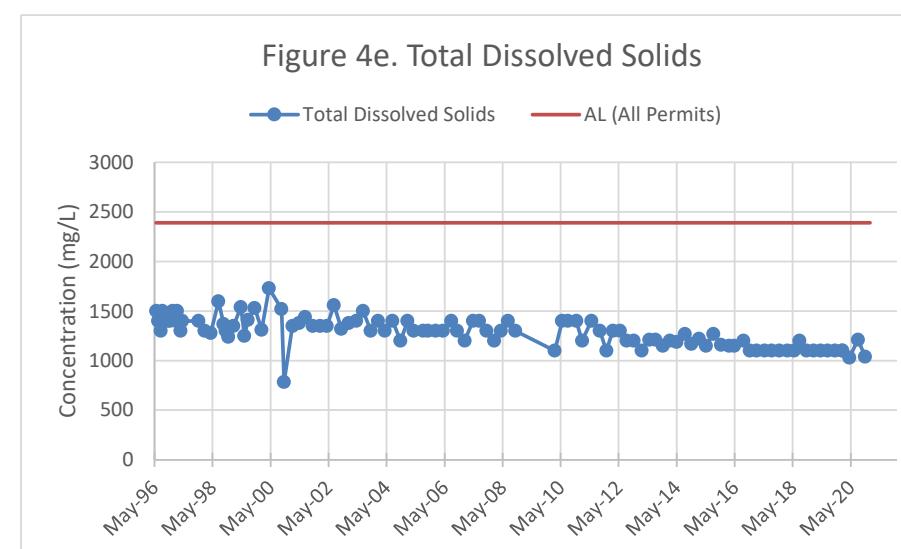
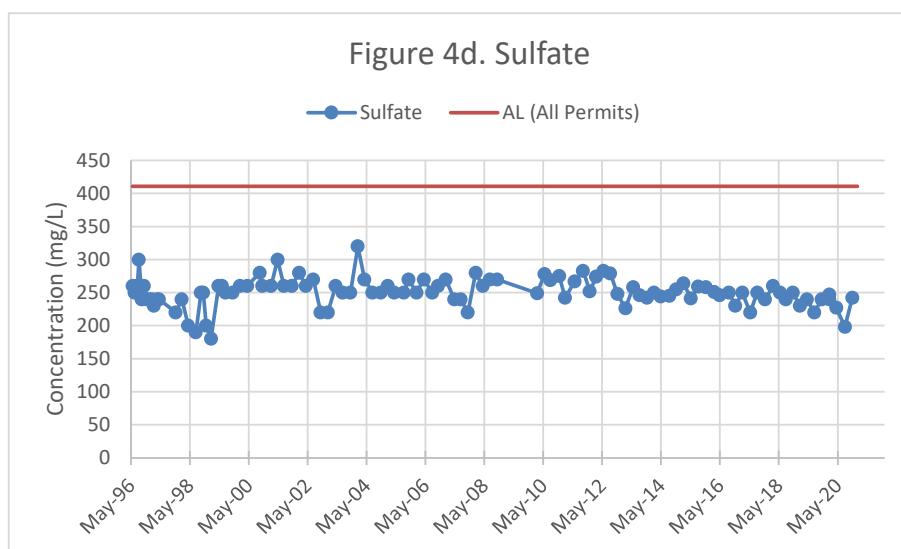
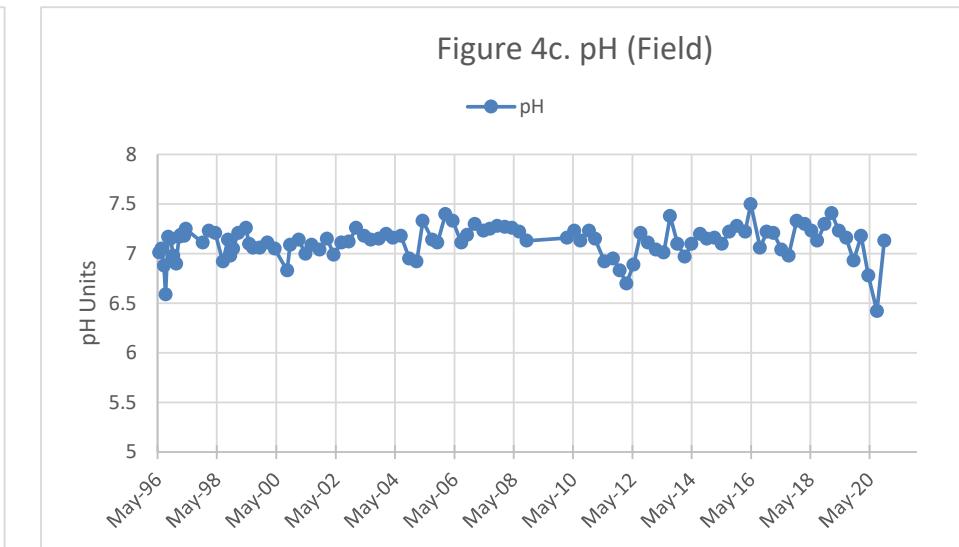
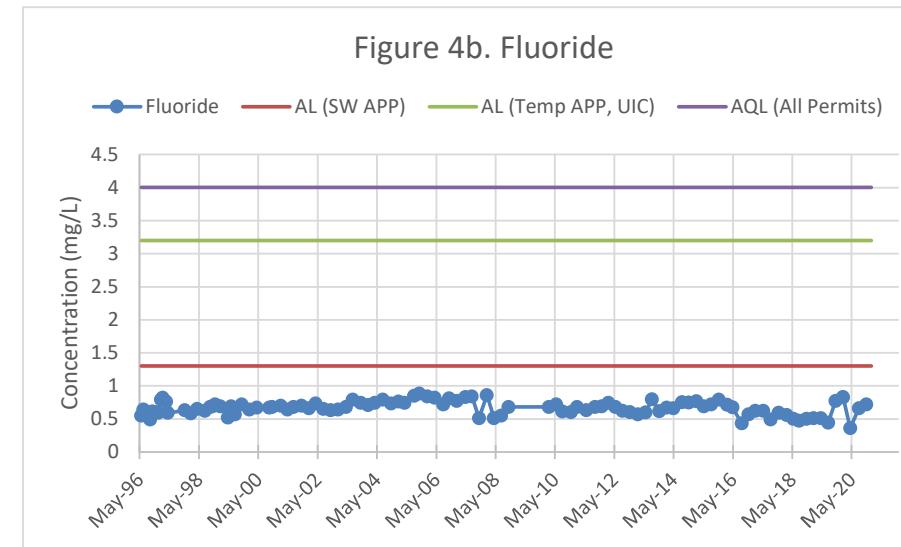
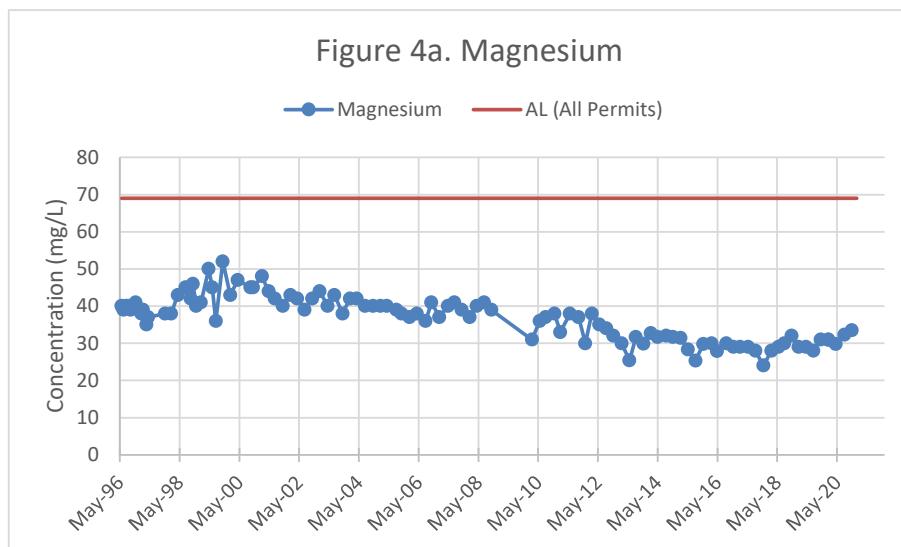
SW APP = Sitewide APP No. P-101704

Temp APP = Temporary APP No P-106360

UIC = Underground Injection Control

UIC = UIC Permit No. R9UIC-AZ3-FY11-1

M23-UBF QUARTERLY CONCENTRATION GRAPHS



Notes:

- AL = Alert level
- APP = Aquifer Protection Permit
- AQL = Aquifer Quality Limit
- All Permits = SW APP, Temp APP, and UIC
- SW APP = Sitewide APP No. P-101704
- Temp APP = Temporary APP No P-106360
- UIC = Underground Injection Control
- UIC = UIC Permit No. R9UIC-AZ3-FY11-1

M52-UBF QUARTERLY CONCENTRATION GRAPHS

Figure 5a. Magnesium

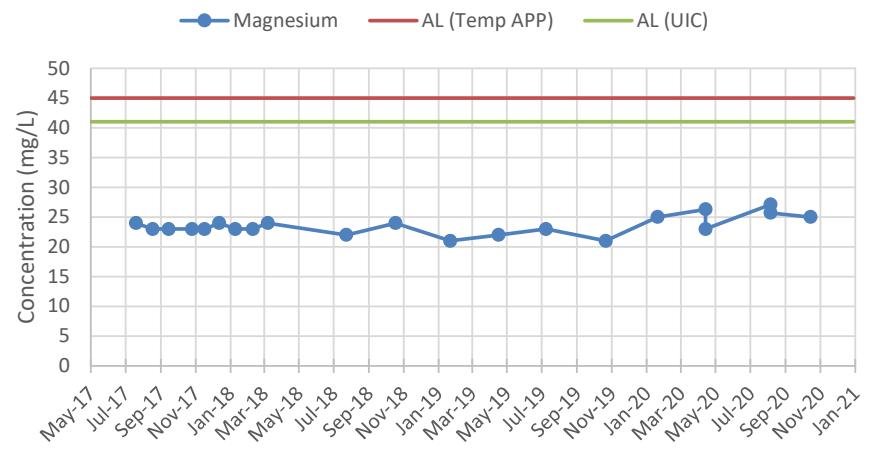


Figure 5b. Fluoride

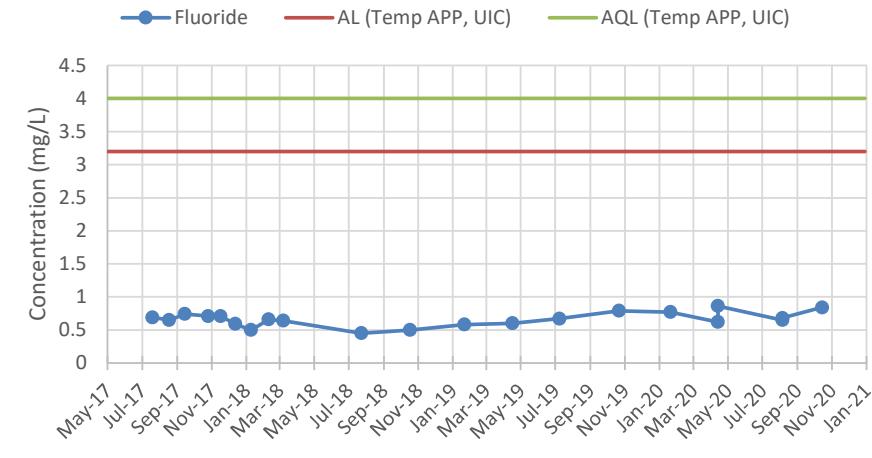


Figure 5c. pH (Field)

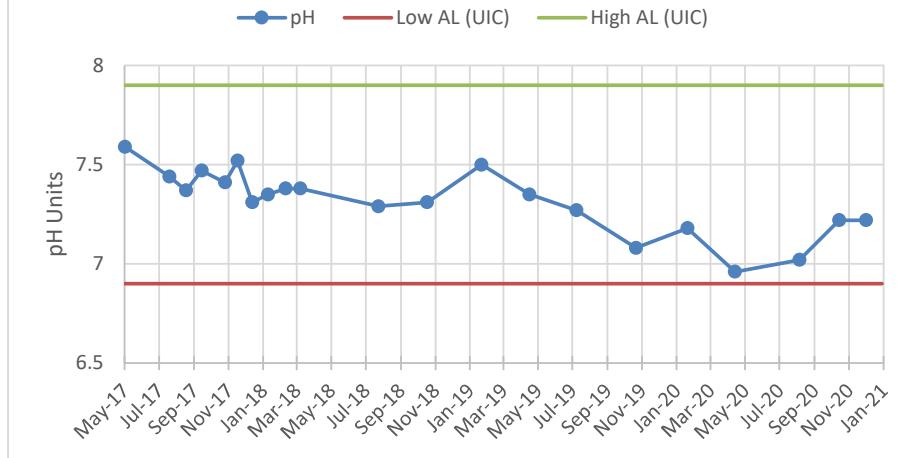


Figure 5d. Sulfate

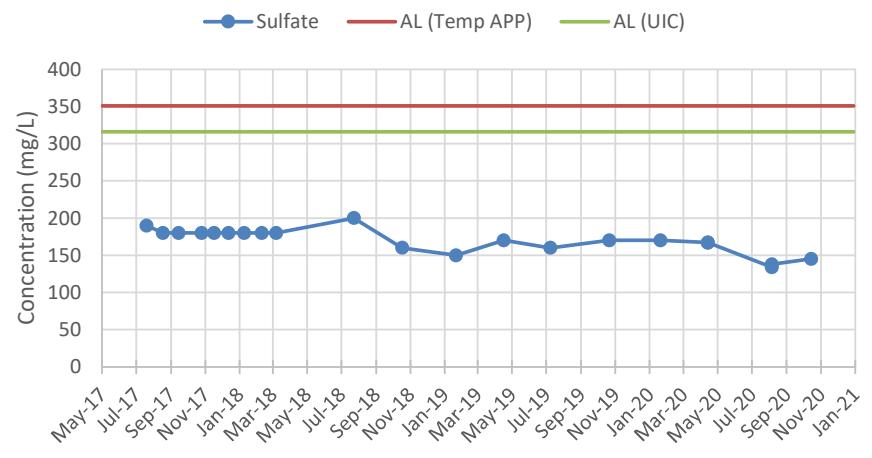


Figure 5e. Total Dissolved Solids

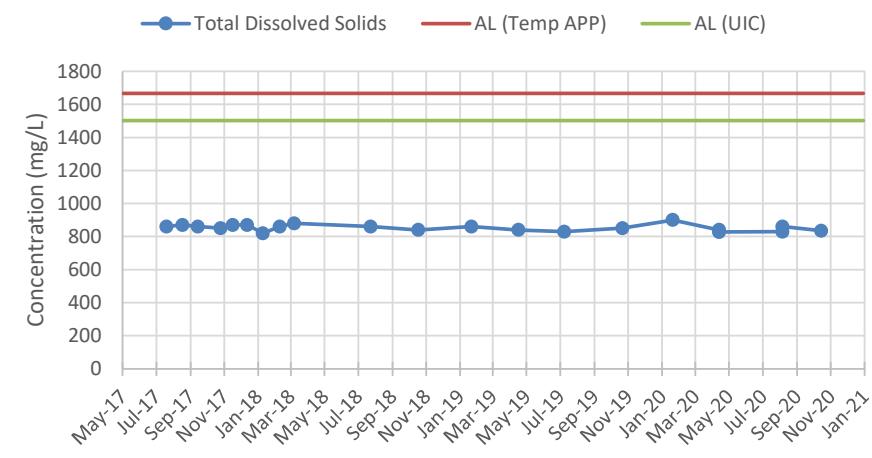
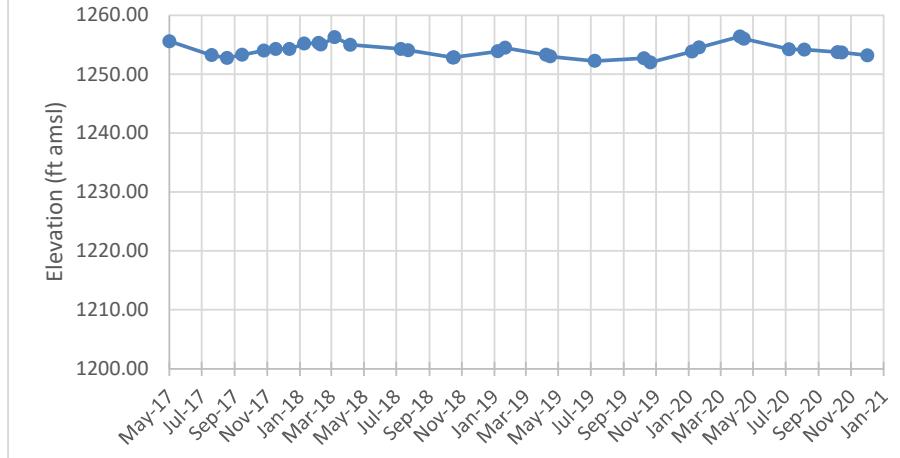


Figure 5f. Groundwater Elevation



Notes:

AL = Alert level

APP = Aquifer Protection Permit

AQL = Aquifer Quality Limit

Temp APP = Temporary APP No P-106360

UIC = Underground Injection Control

UIC = UIC Permit No. R9UIC-AZ3-FY11-1

M54-LBF QUARTERLY CONCENTRATION GRAPHS

Figure 6a. Magnesium

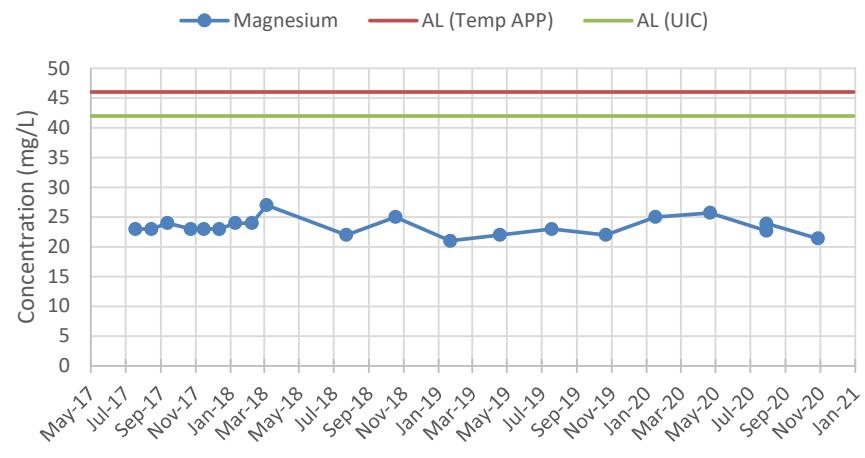


Figure 6b. Fluoride

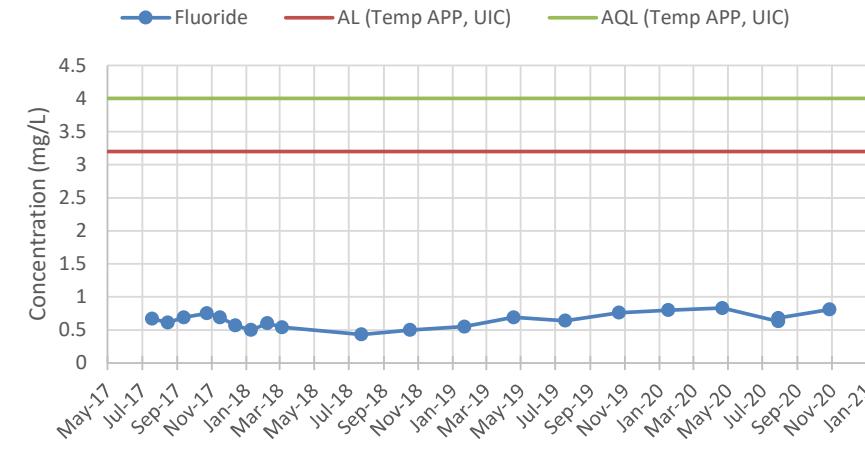


Figure 6c. pH (Field)

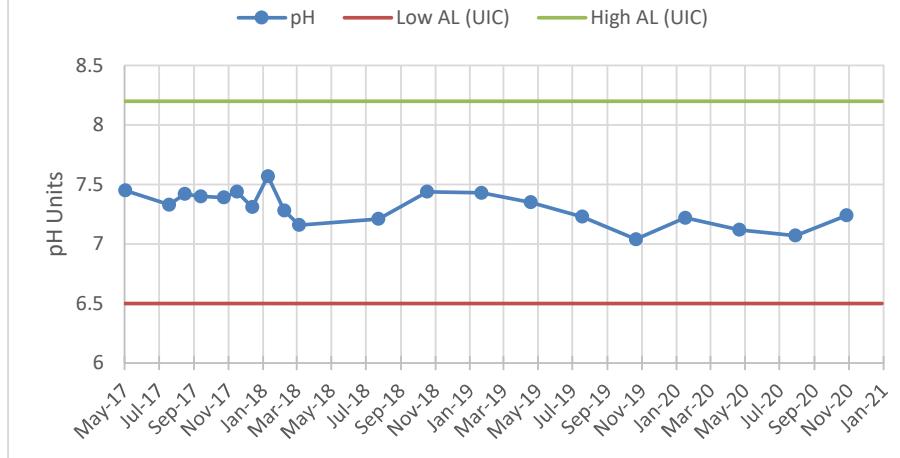


Figure 6d. Sulfate

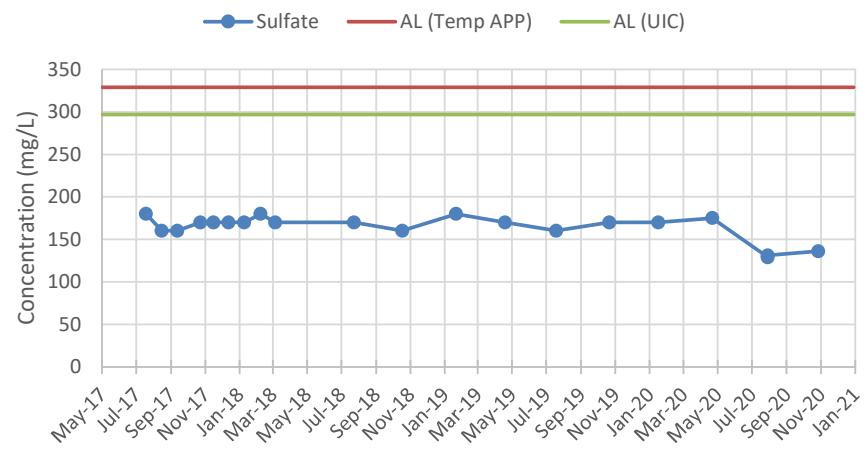


Figure 6e. Total Dissolved Solids

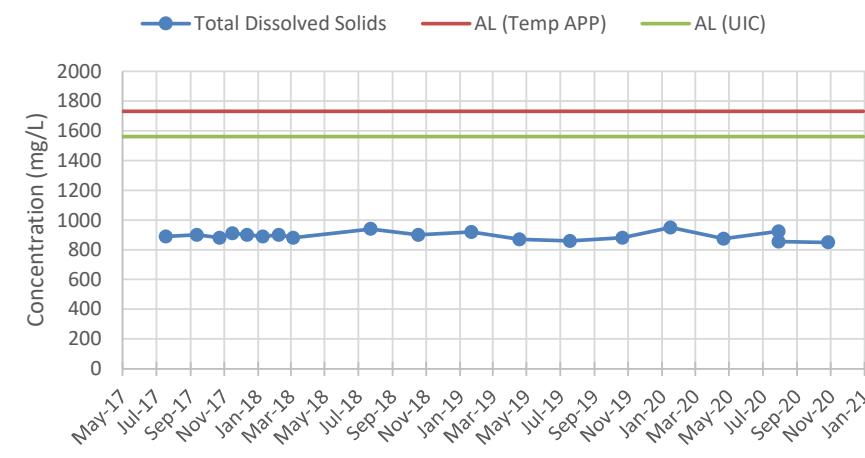
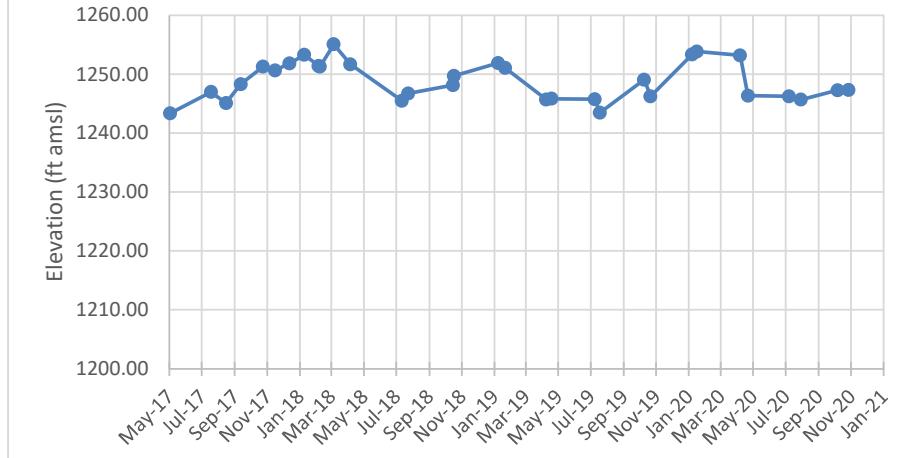


Figure 6f. Groundwater Elevation



Notes:

Historical outliers removed from graphs for visual representation, but are maintained in the dataset.

AL = Alert level

APP = Aquifer Protection Permit

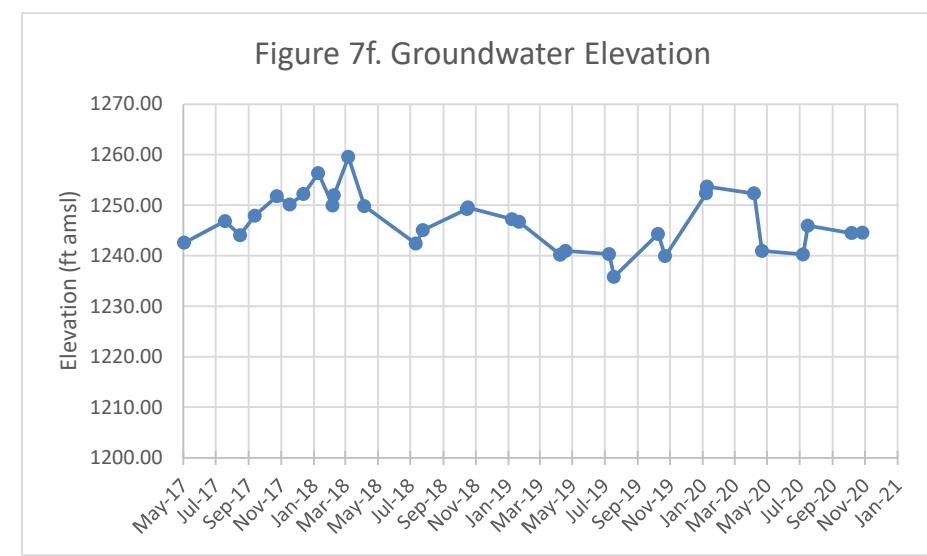
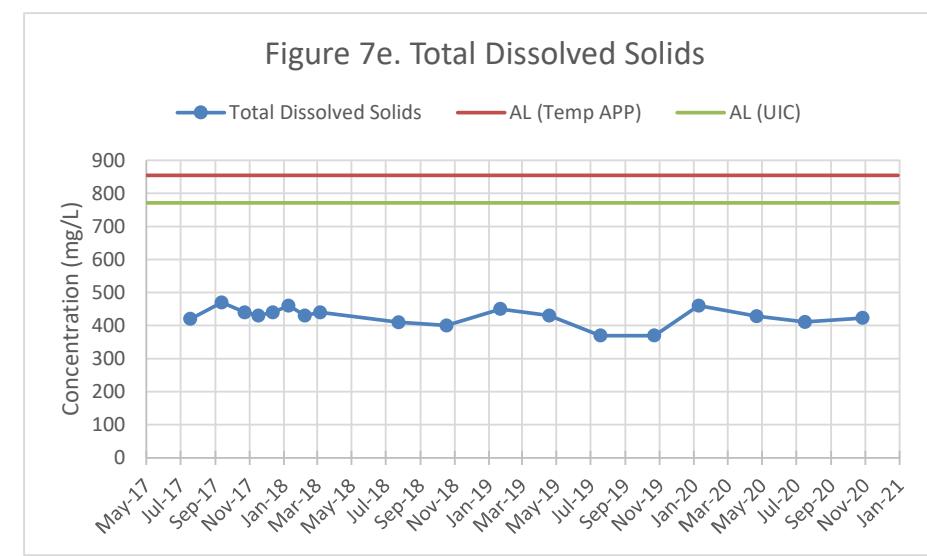
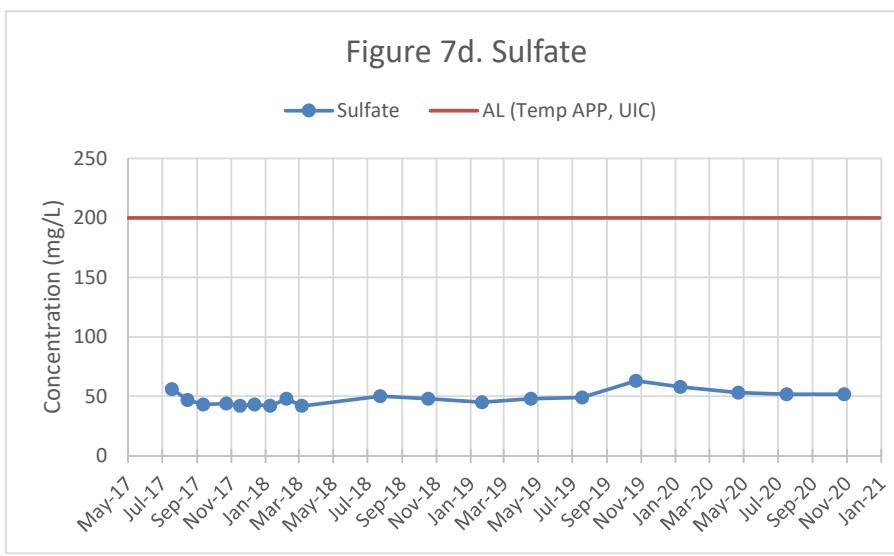
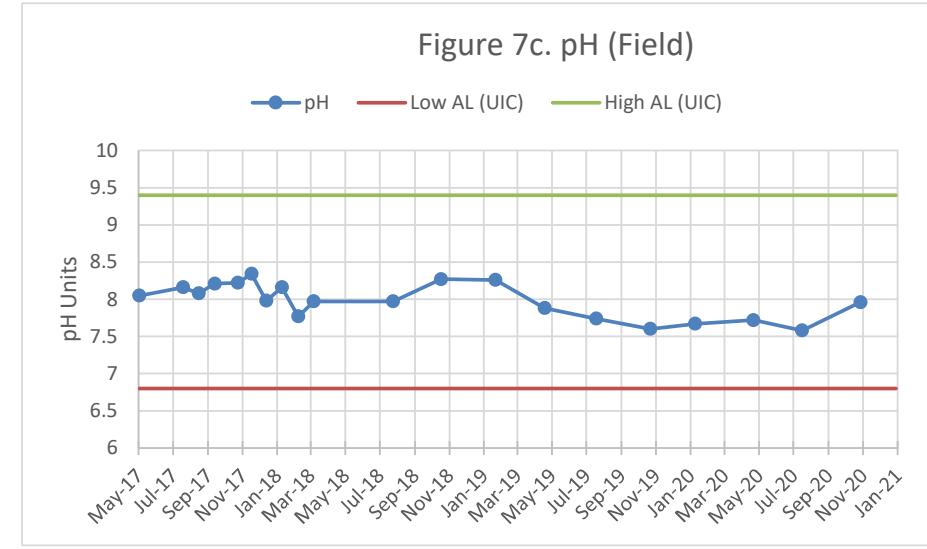
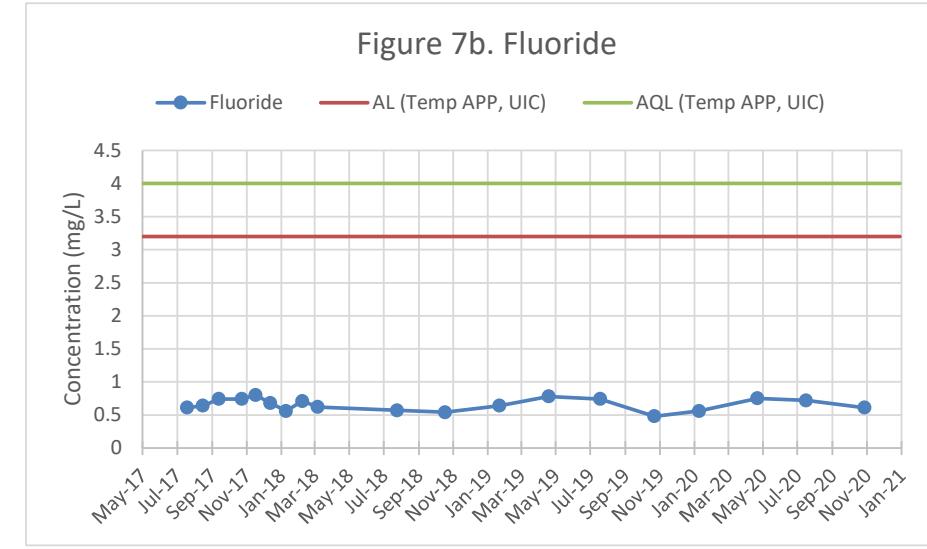
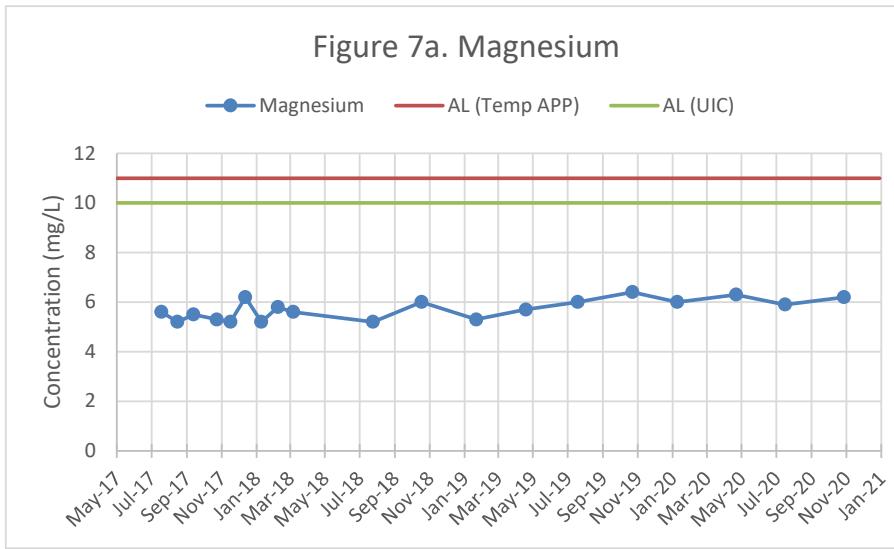
AQL = Aquifer Quality Limit

Temp APP = Temporary APP No P-106360

UIC = Underground Injection Control

UIC = UIC Permit No. R9UIC-AZ3-FY11-1

M54-O QUARTERLY CONCENTRATION GRAPHS



Notes:

AL = Alert level

APP = Aquifer Protection Permit

AQL = Aquifer Quality Limit

Temp APP = Temporary APP No P-106360

UIC = Underground Injection Control

UIC = UIC Permit No. R9UIC-AZ3-FY11-1

M55-UBF QUARTERLY CONCENTRATION GRAPHS

Figure 8a. Magnesium

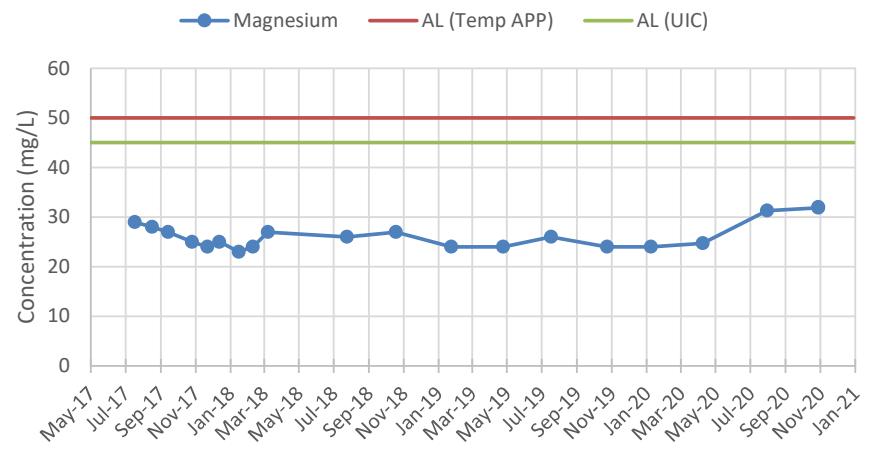


Figure 8b. Fluoride

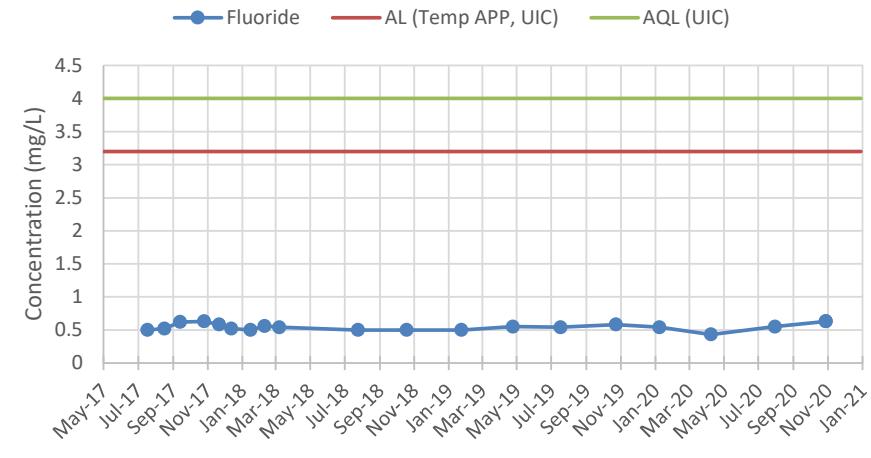


Figure 8c. pH (Field)

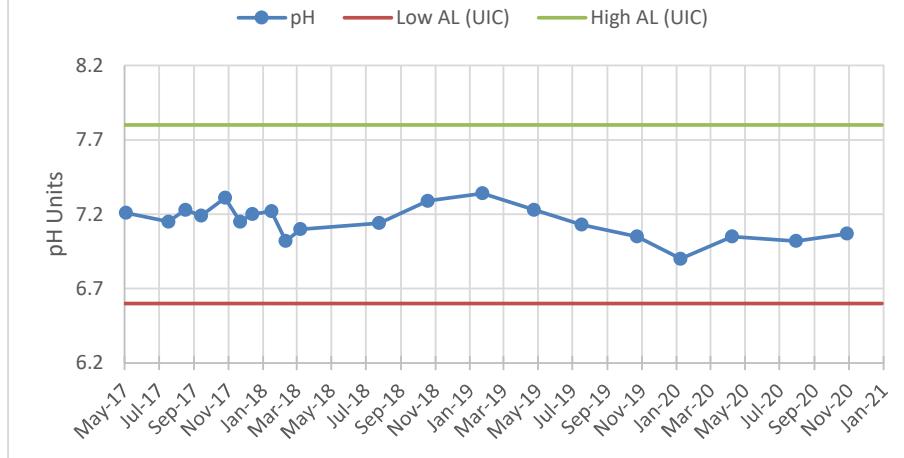


Figure 8d. Sulfate

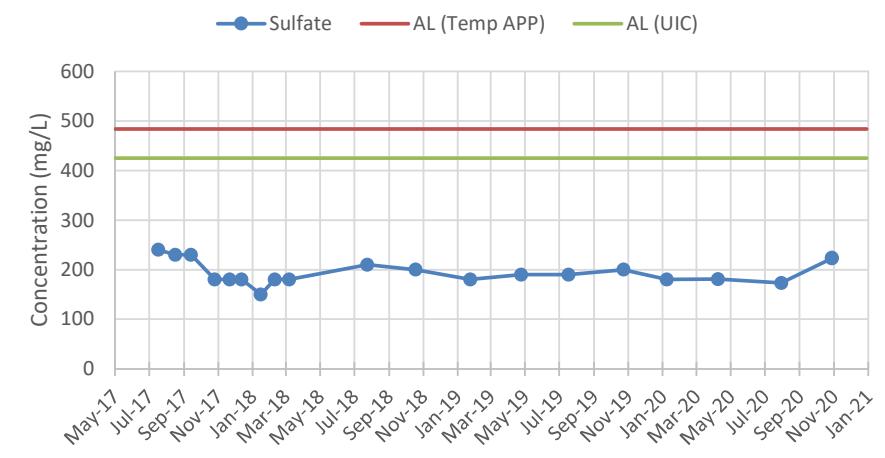


Figure 8e. Total Dissolved Solids

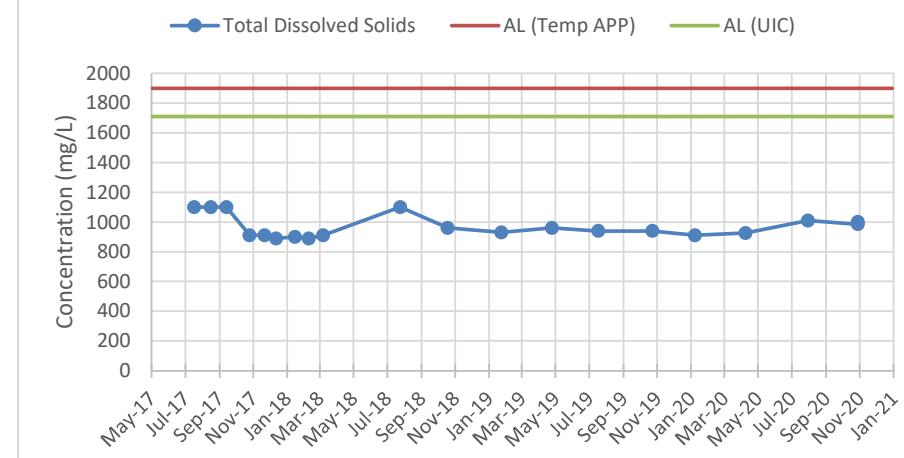
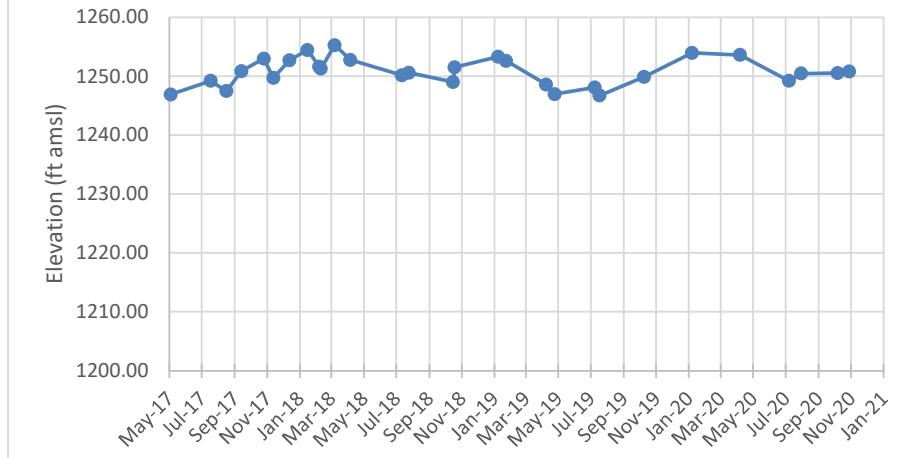


Figure 8f. Groundwater Elevation



Notes:

AL = Alert level

APP = Aquifer Protection Permit

AQL = Aquifer Quality Limit

Temp APP = Temporary APP No P-106360

UIC = Underground Injection Control

UIC = UIC Permit No. R9UIC-AZ3-FY11-1

M56-LBF QUARTERLY CONCENTRATION GRAPHS

Figure 9a. Magnesium

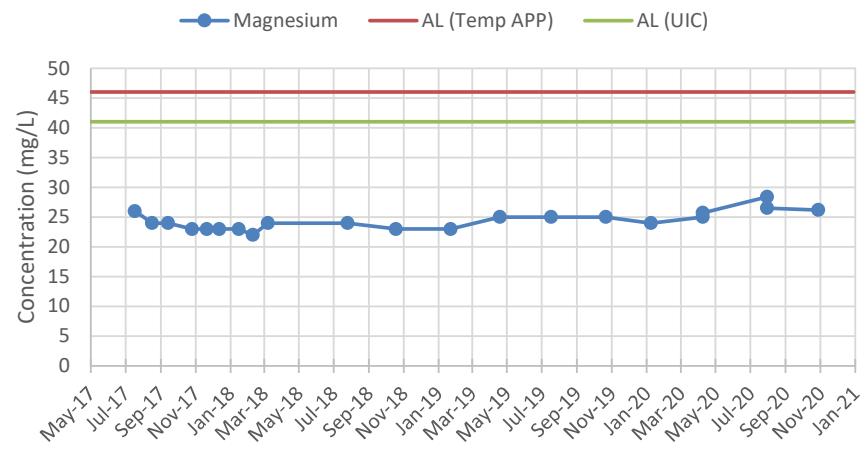


Figure 9b. Fluoride

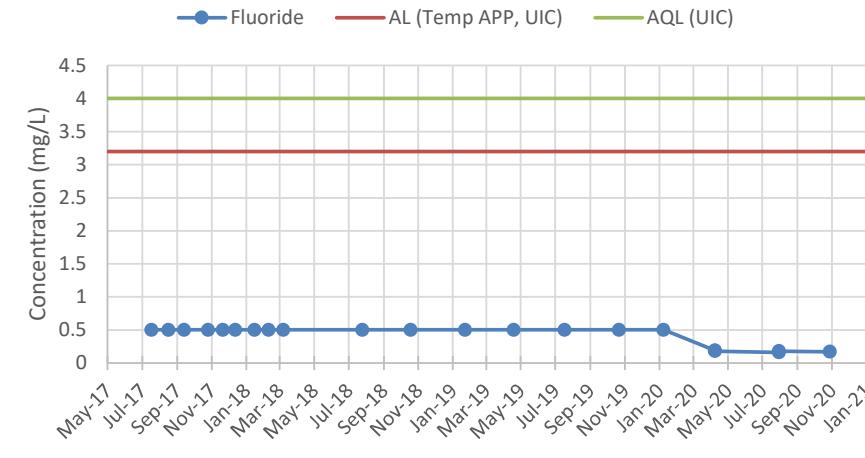


Figure 9c. pH (Field)

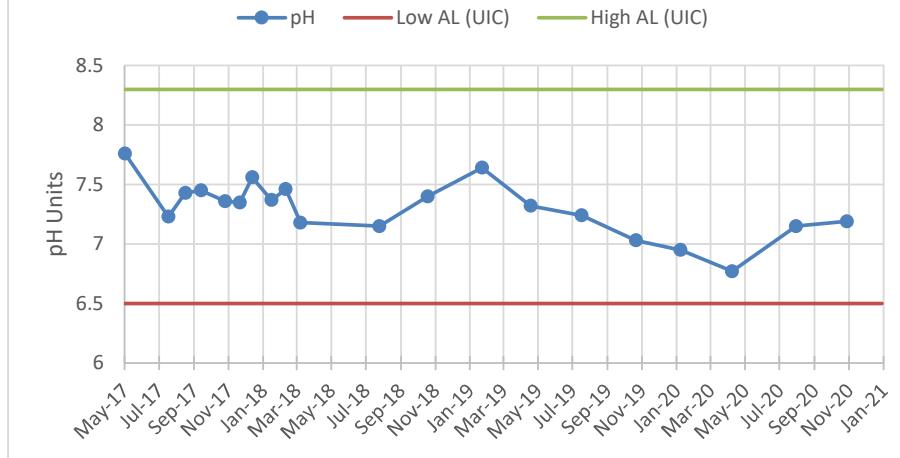


Figure 9d. Sulfate

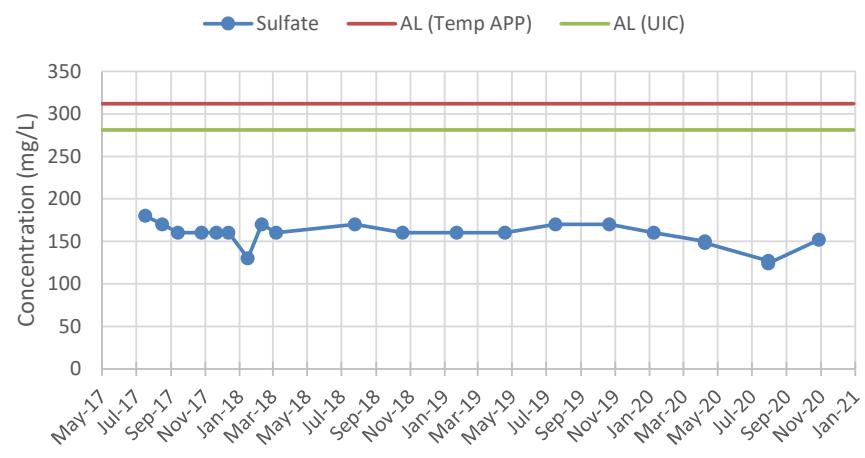


Figure 9e. Total Dissolved Solids

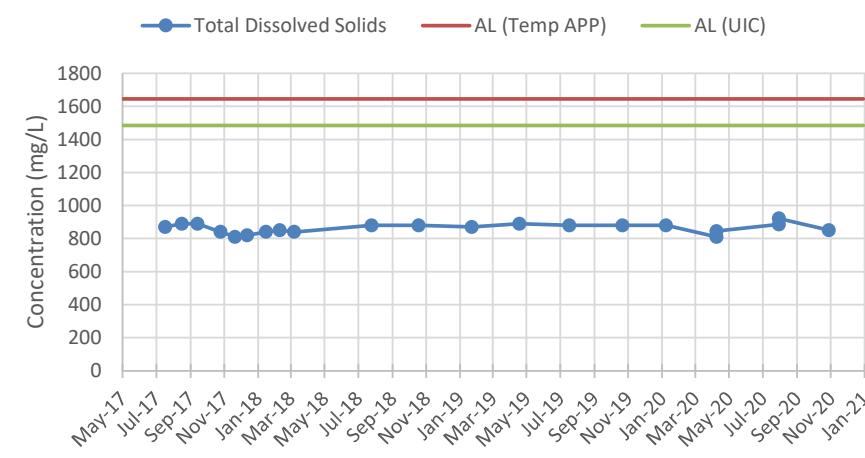
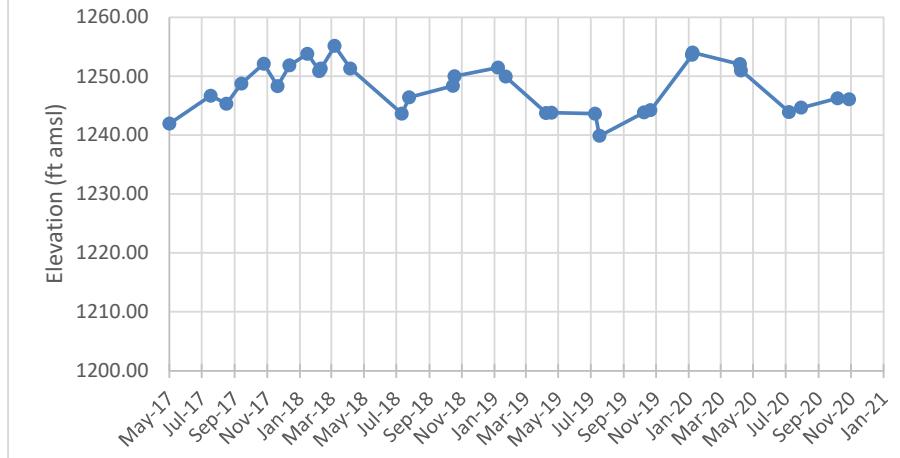


Figure 9f. Groundwater Elevation



Notes:

AL = Alert level

APP = Aquifer Protection Permit

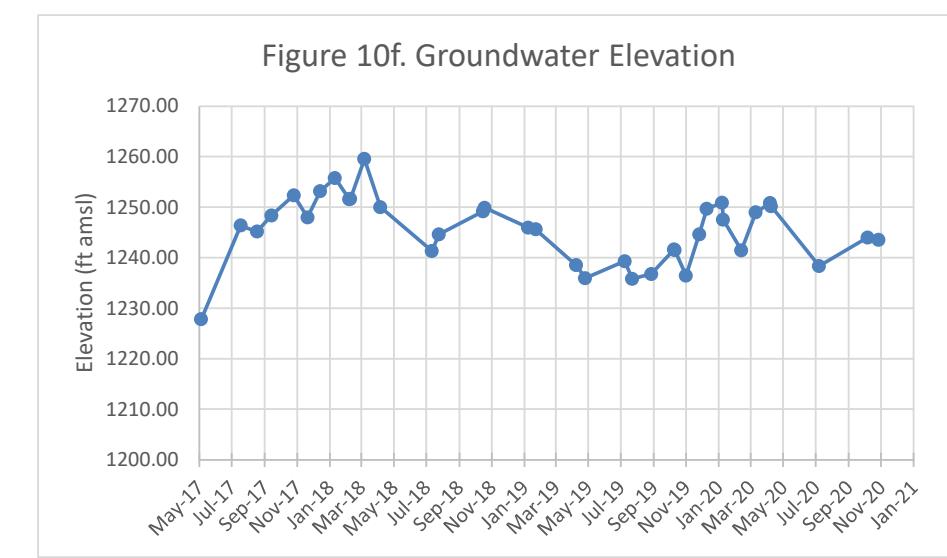
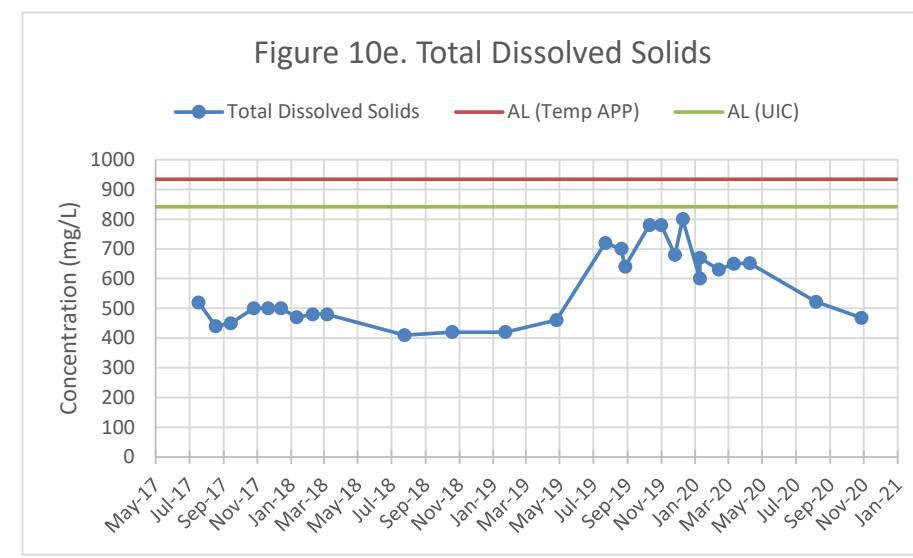
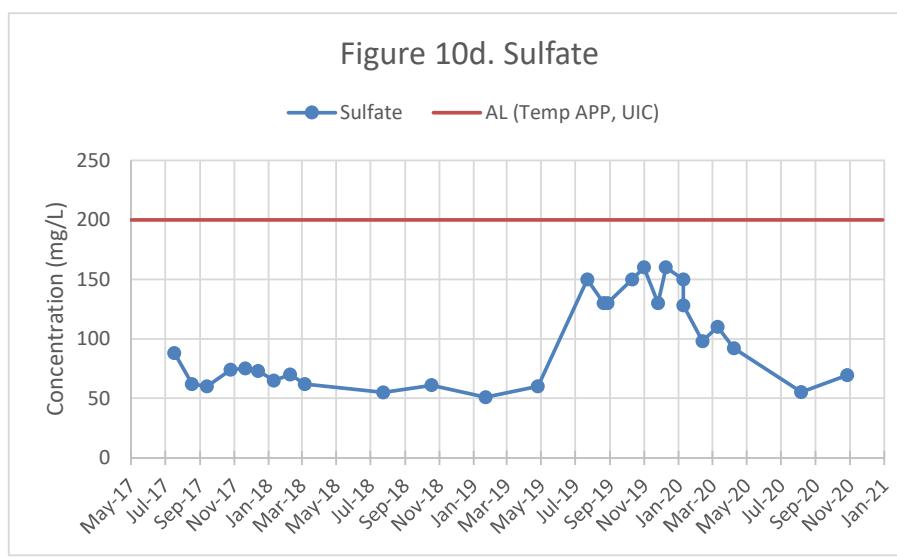
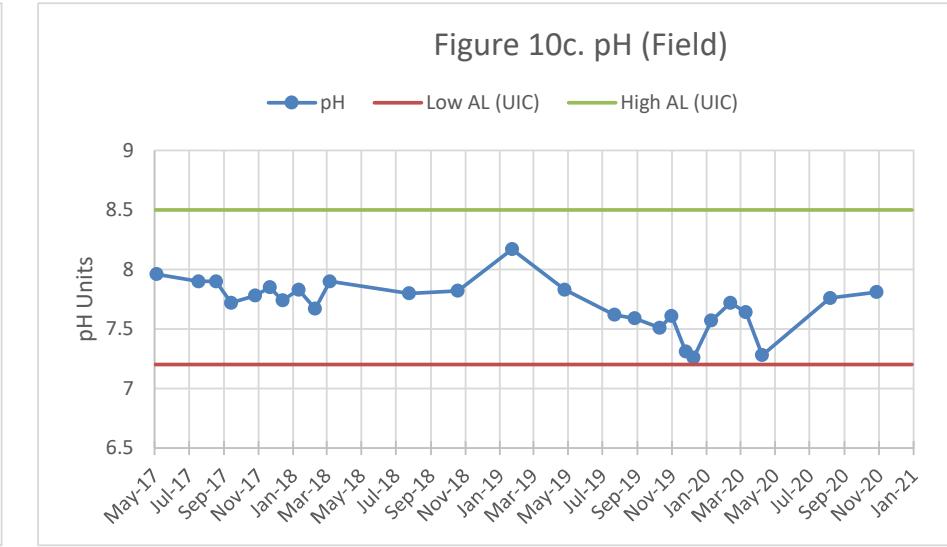
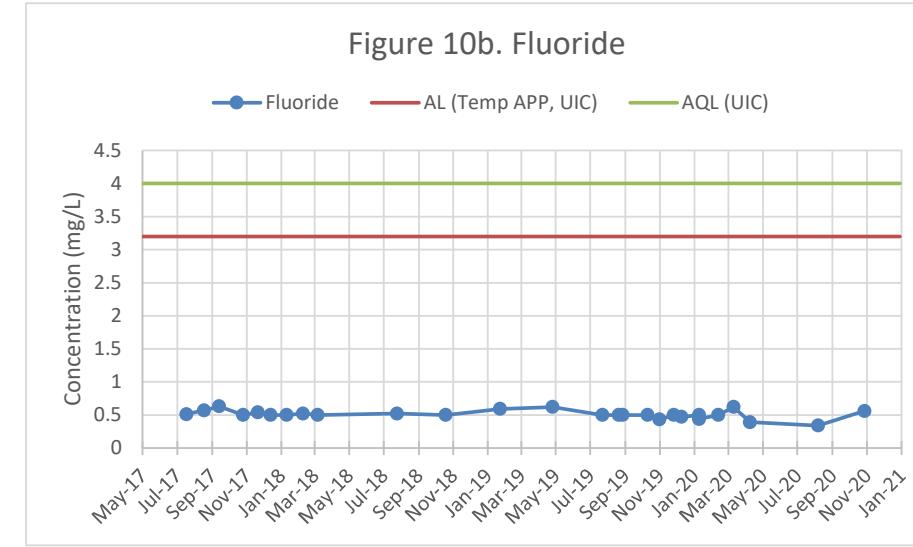
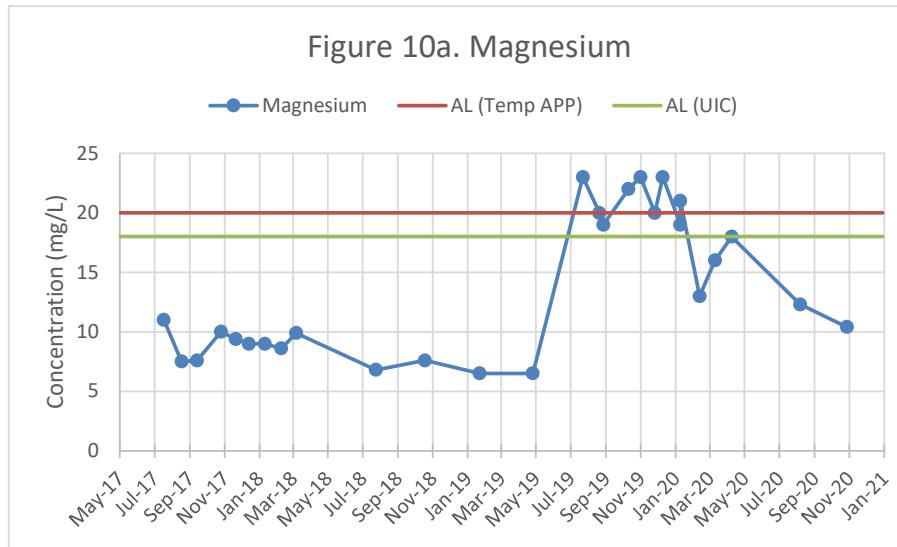
AQL = Aquifer Quality Limit

Temp APP = Temporary APP No P-106360

UIC = Underground Injection Control

UIC = UIC Permit No. R9UIC-AZ3-FY11-1

M57-O QUARTERLY CONCENTRATION GRAPHS



Notes:

AL = Alert level

APP = Aquifer Protection Permit

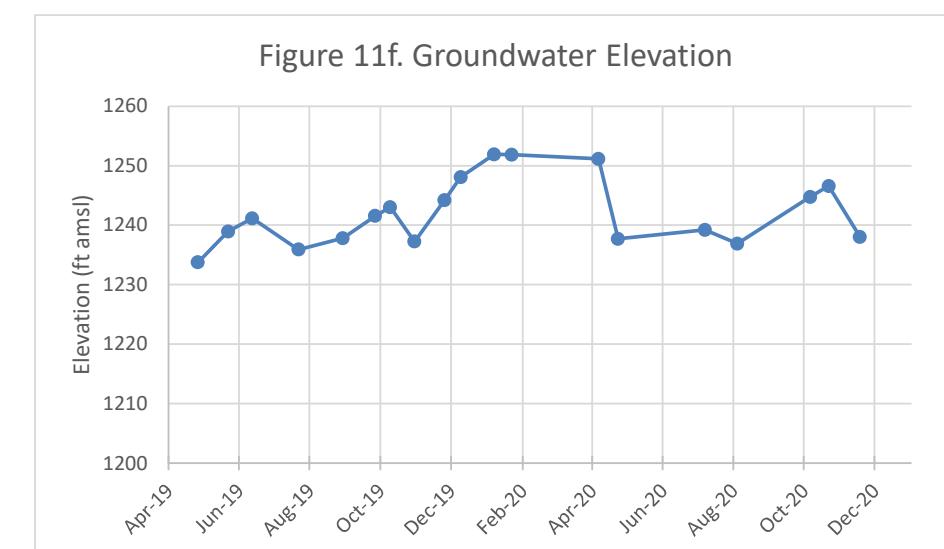
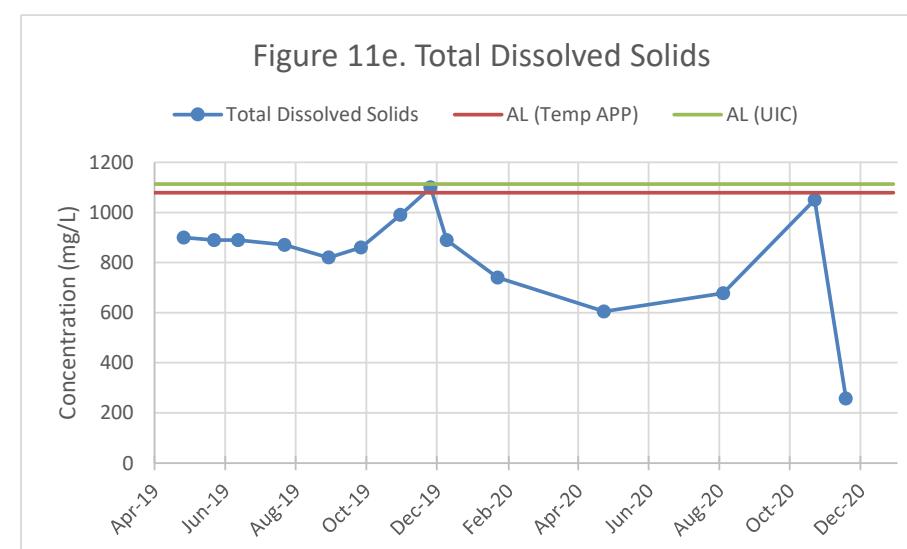
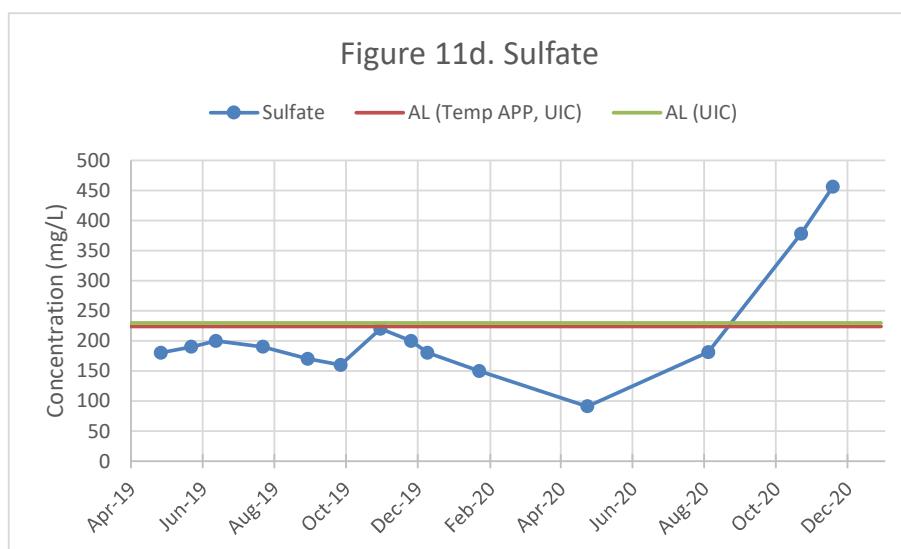
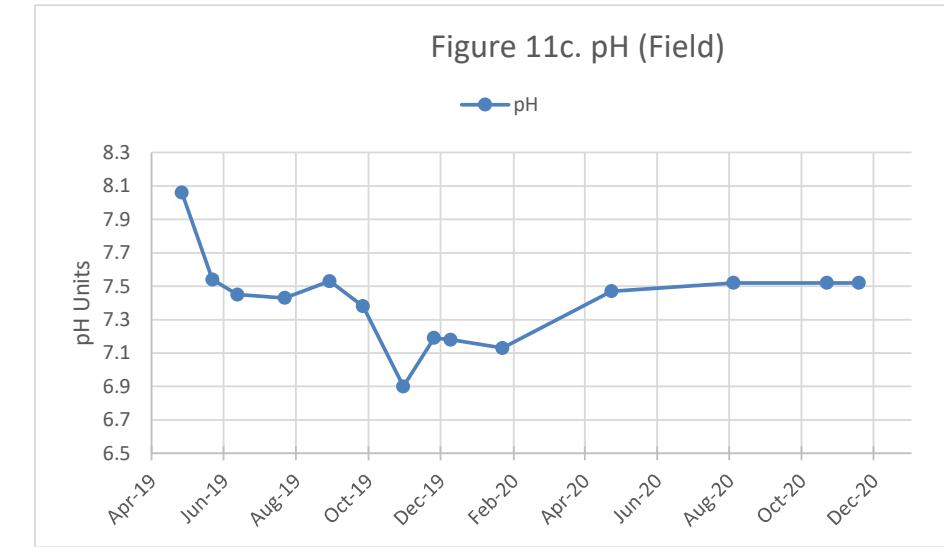
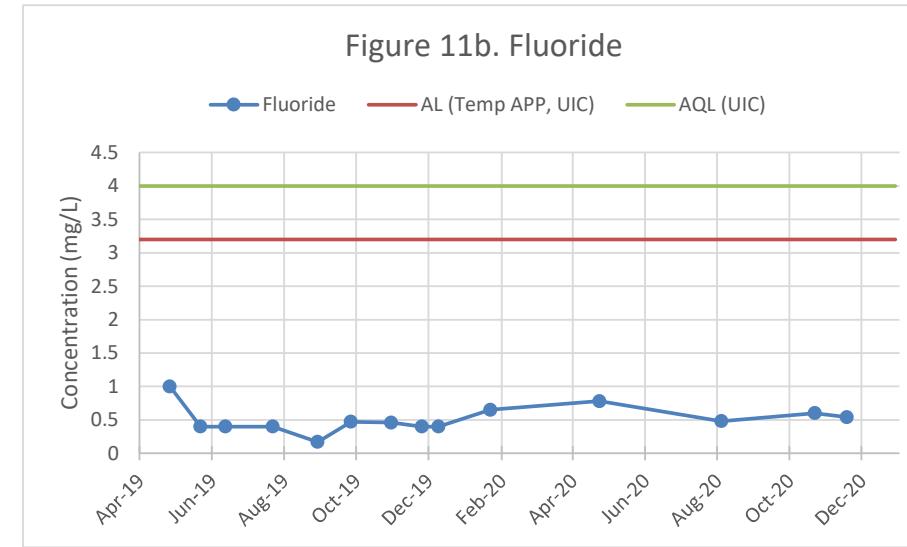
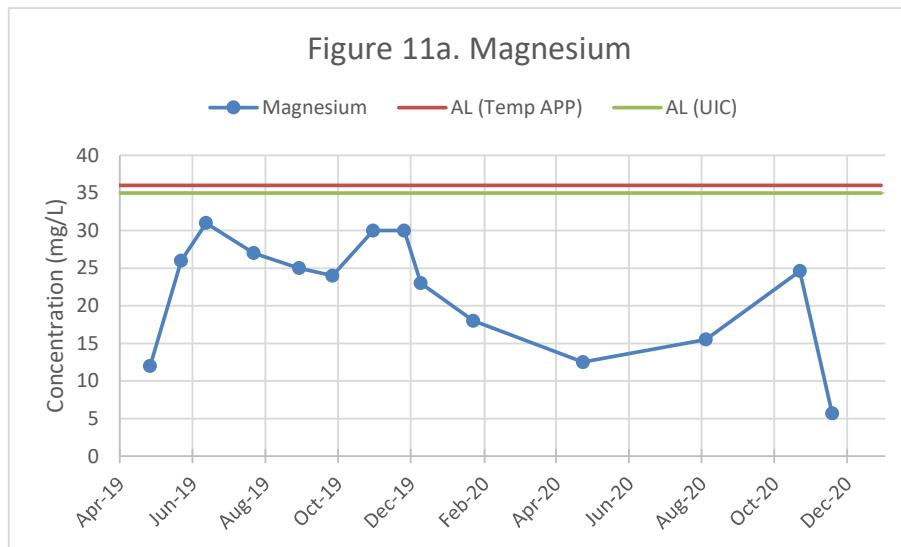
AQL = Aquifer Quality Limit

Temp APP = Temporary APP No P-106360

UIC = Underground Injection Control

UIC = UIC Permit No. R9UIC-AZ3-FY11-1

M57R-O QUARTERLY CONCENTRATION GRAPHS



Notes:

AL = Alert level

APP = Aquifer Protection Permit

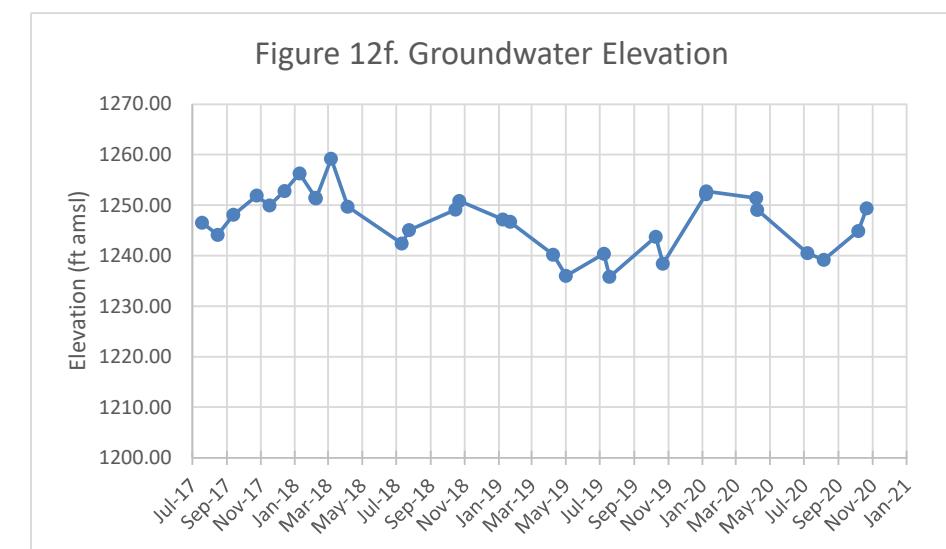
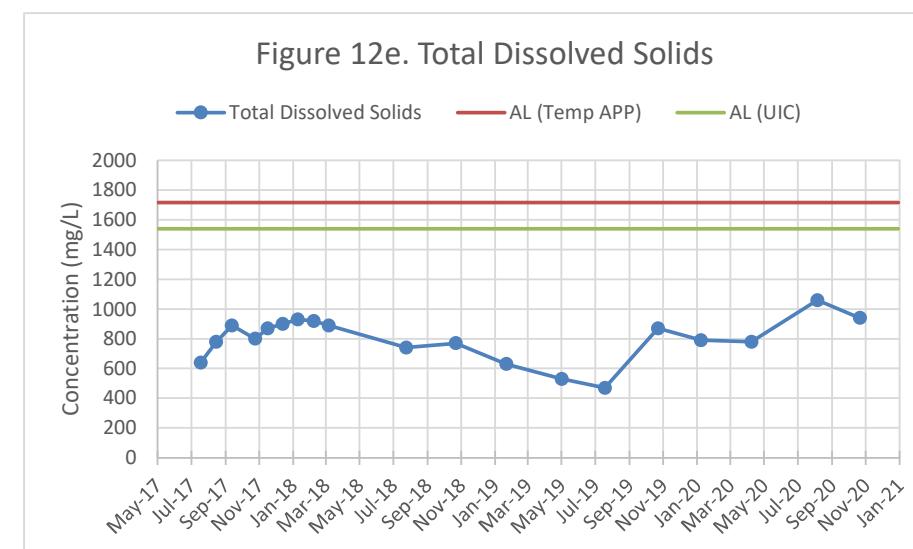
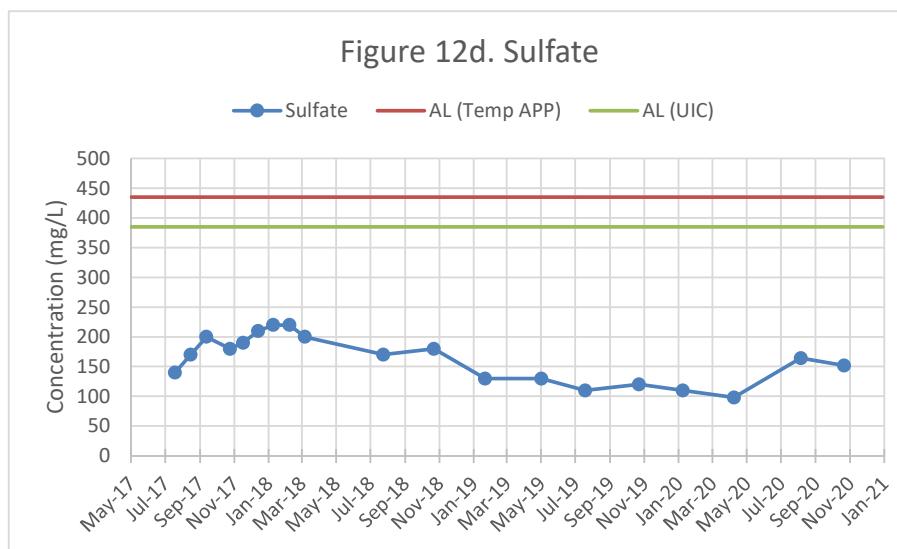
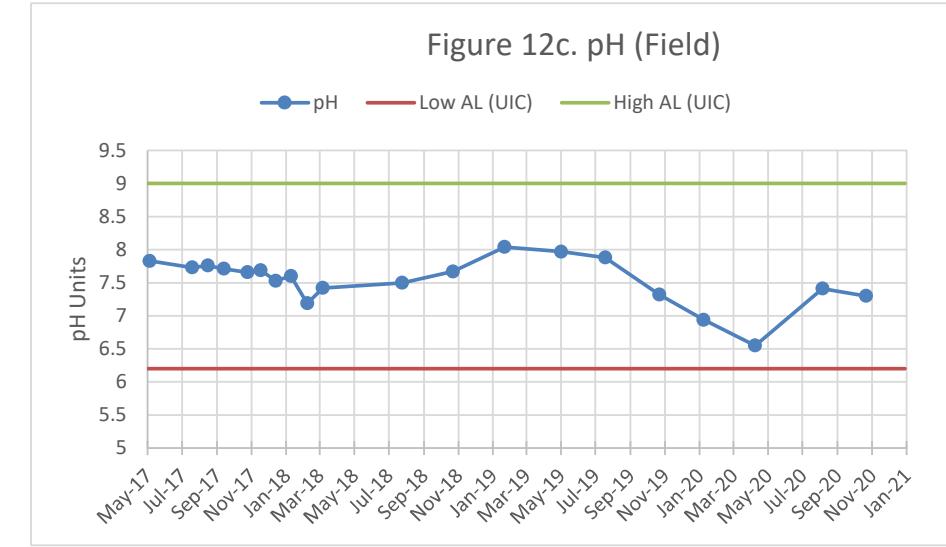
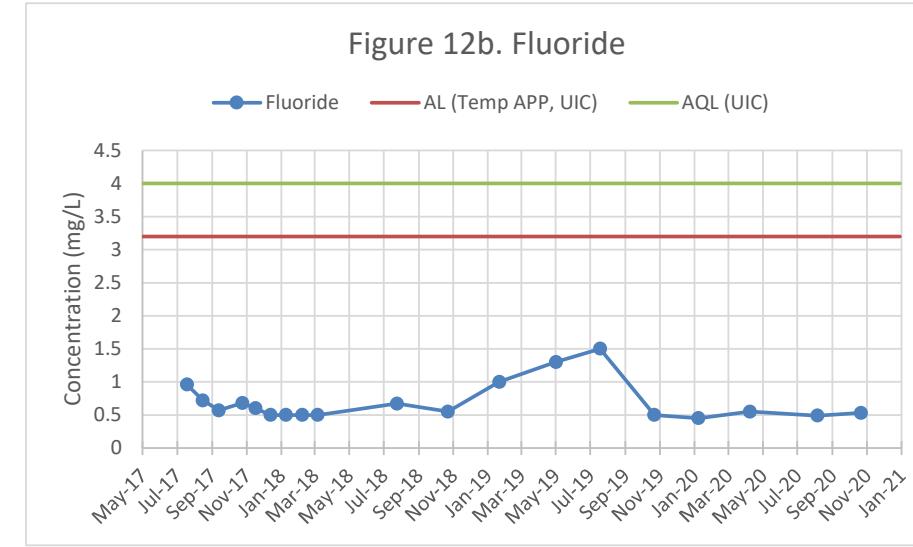
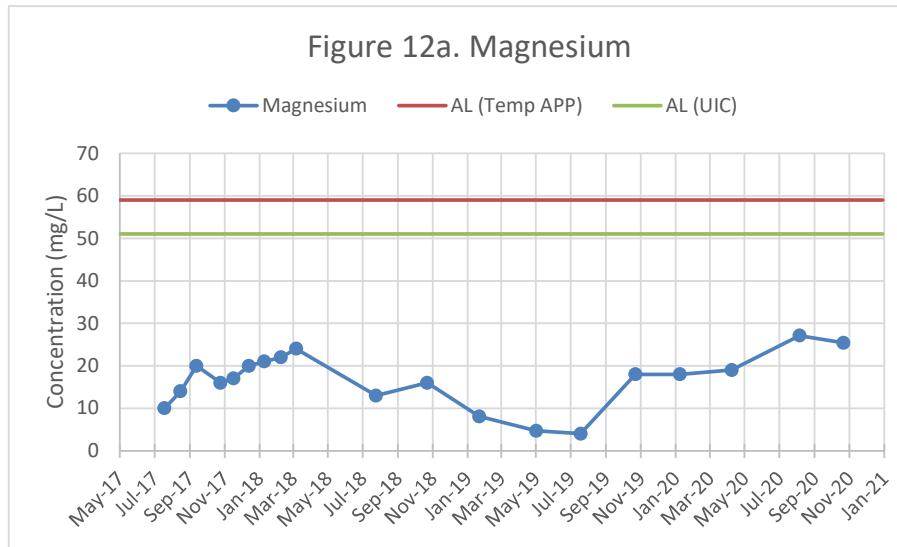
AQL = Aquifer Quality Limit

Temp APP = Temporary APP No P-106360

UIC = Underground Injection Control

UIC = UIC Permit No. R9UIC-AZ3-FY11-1

M58-O QUARTERLY CONCENTRATION GRAPHS



Notes:

AL = Alert level

APP = Aquifer Protection Permit

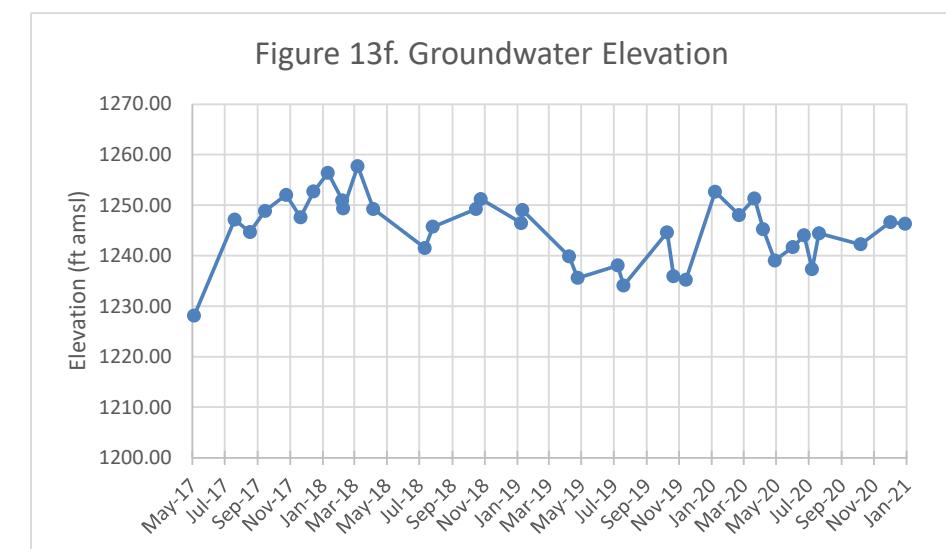
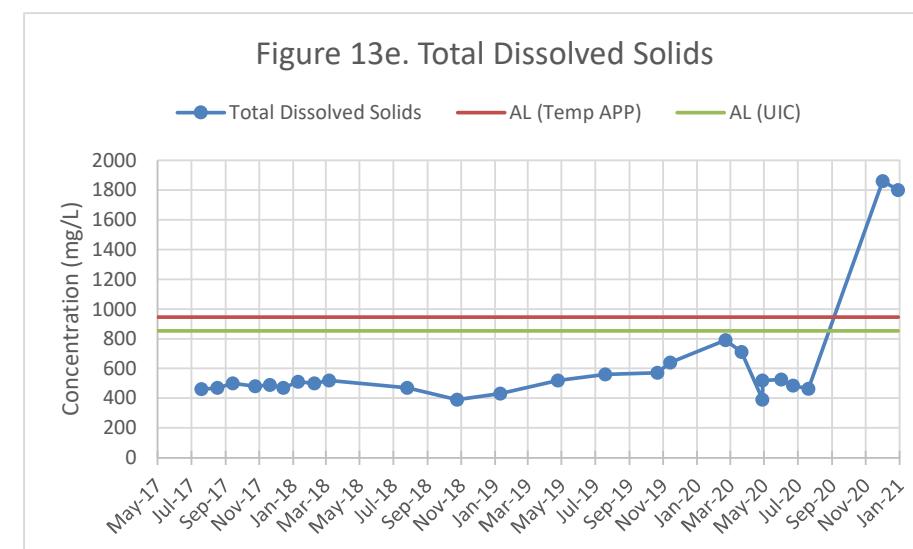
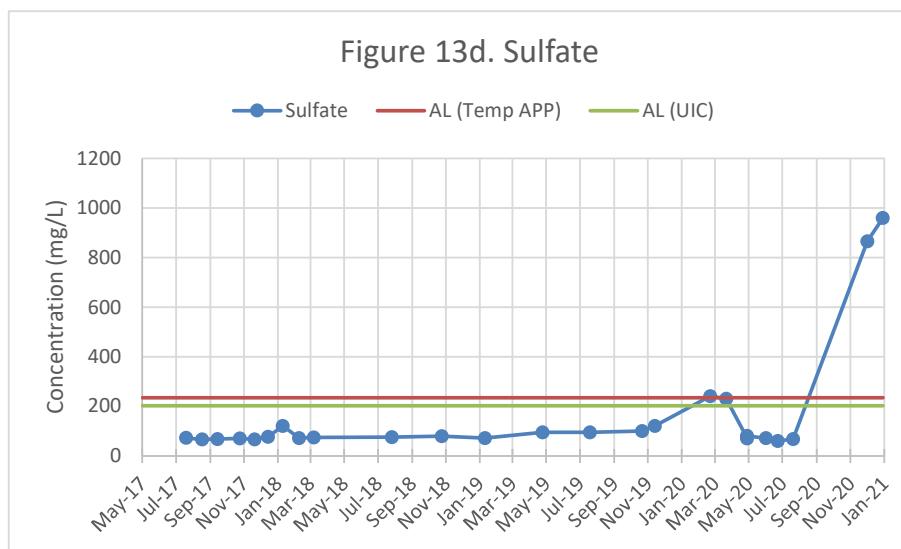
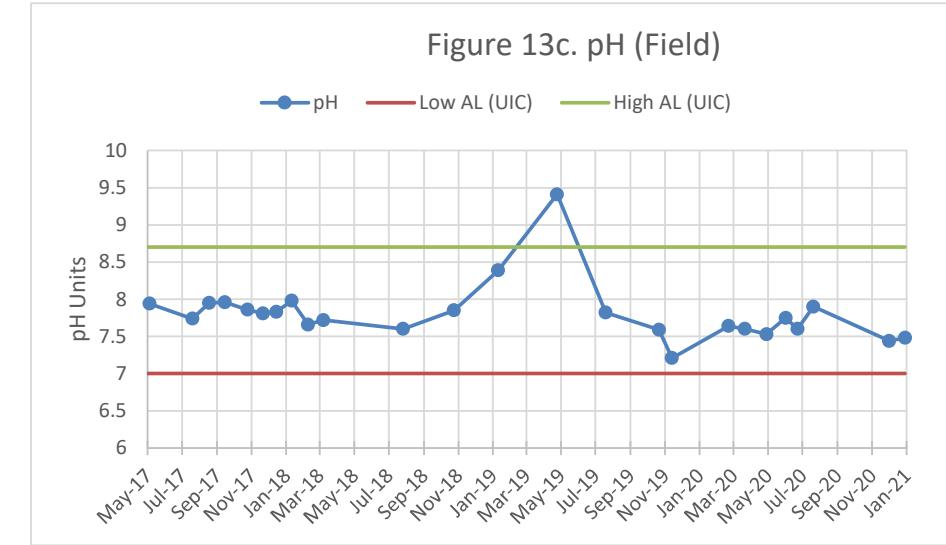
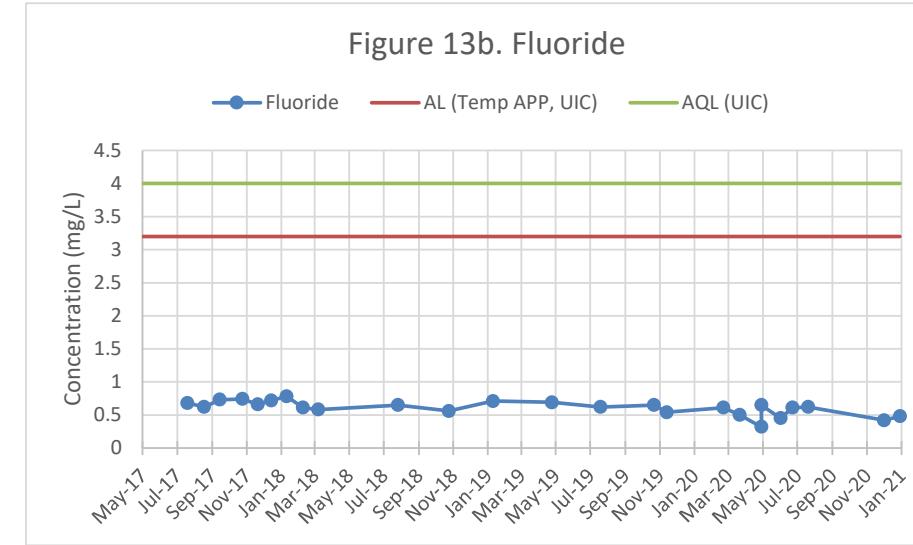
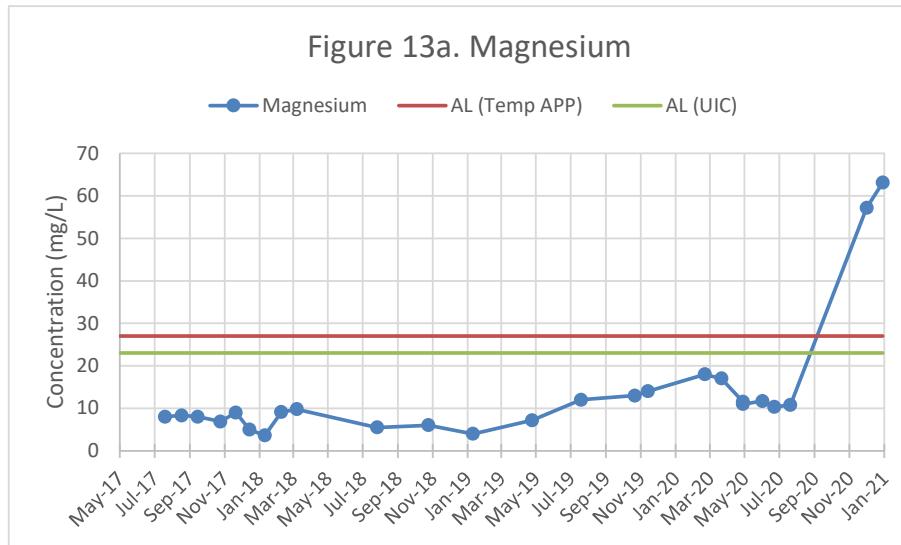
AQL = Aquifer Quality Limit

Temp APP = Temporary APP No P-106360

UIC = Underground Injection Control

UIC = UIC Permit No. R9UIC-AZ3-FY11-1

M59-O QUARTERLY CONCENTRATION GRAPHS



Notes:

AL = Alert level

APP = Aquifer Protection Permit

AQL = Aquifer Quality Limit

Temp APP = Temporary APP No P-106360

UIC = Underground Injection Control

UIC = UIC Permit No. R9UIC-AZ3-FY11-1

M60-O QUARTERLY CONCENTRATION GRAPHS

Figure 14a. Magnesium

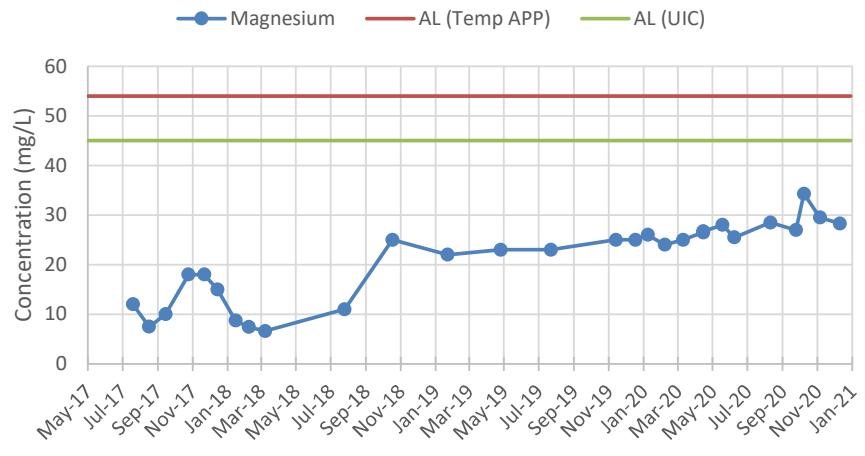


Figure 14b. Fluoride

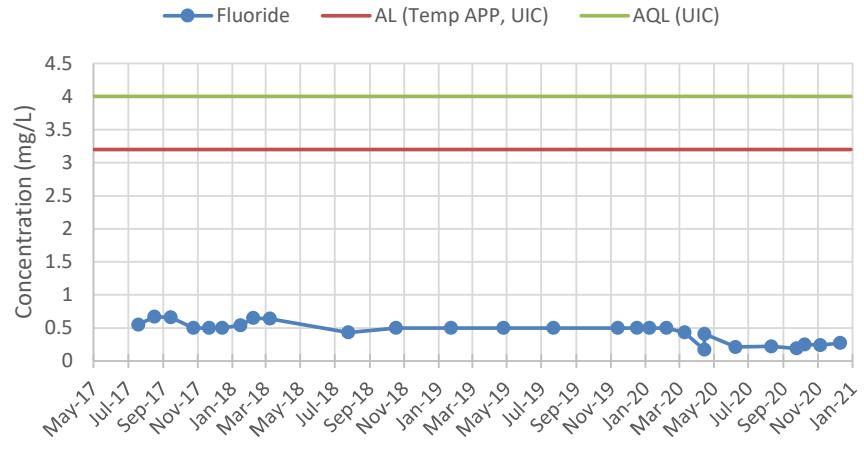


Figure 14c. pH (Field)

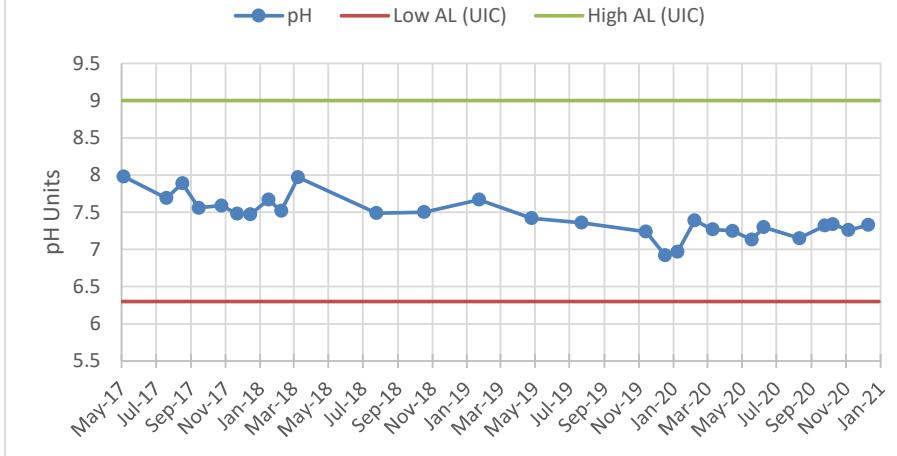


Figure 14d. Sulfate

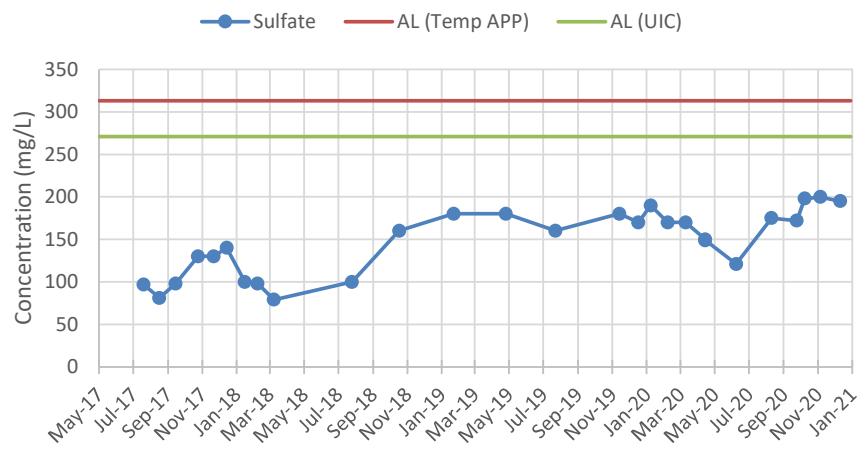


Figure 14e. Total Dissolved Solids

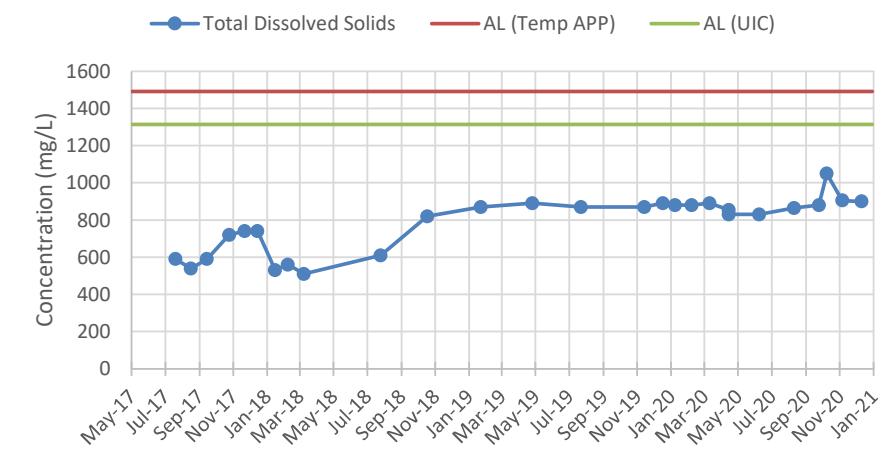
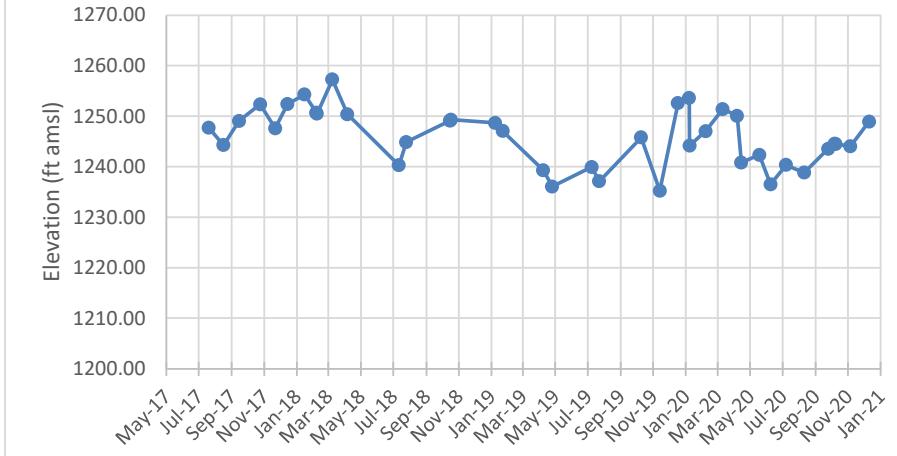


Figure 14f. Groundwater Elevation



Notes:

AL = Alert level

APP = Aquifer Protection Permit

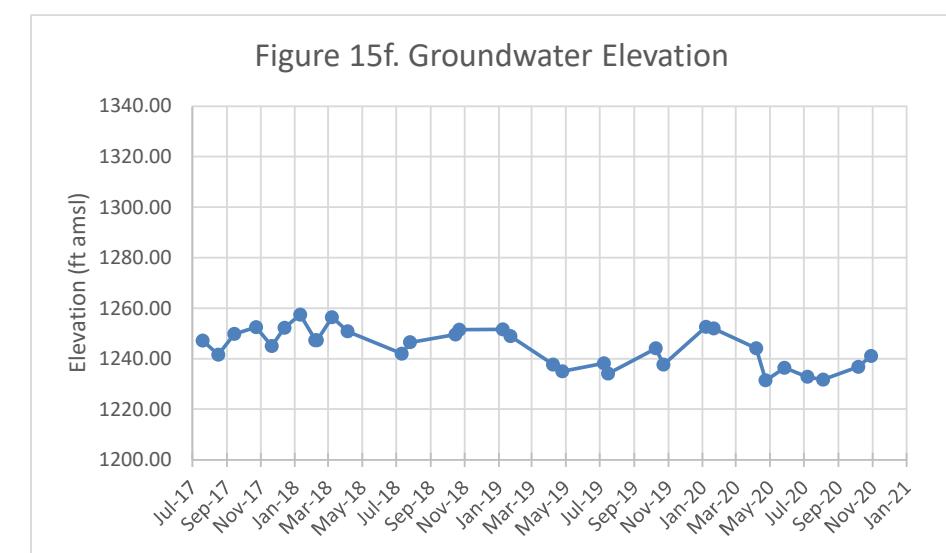
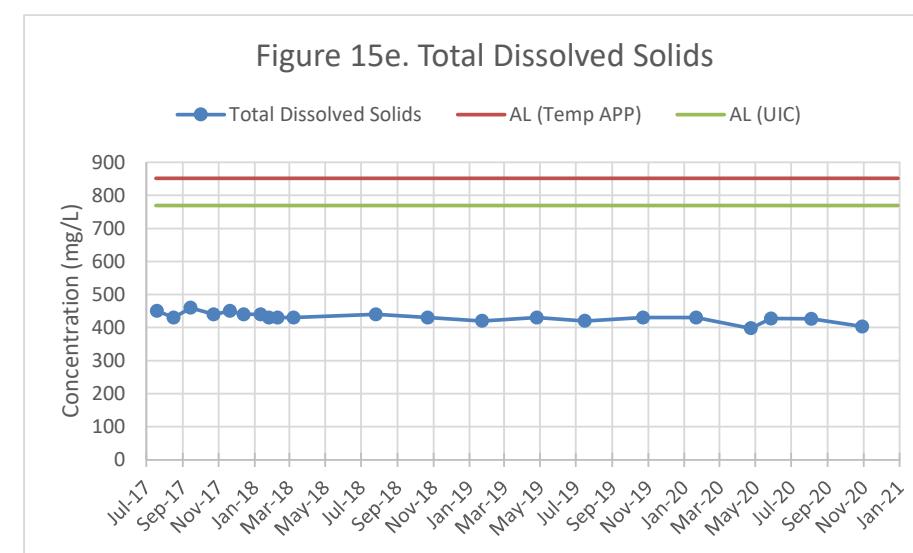
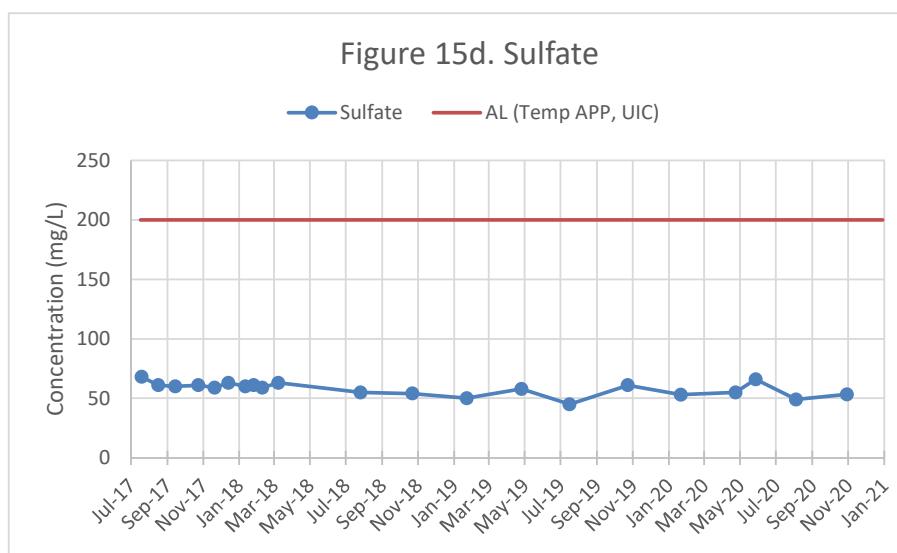
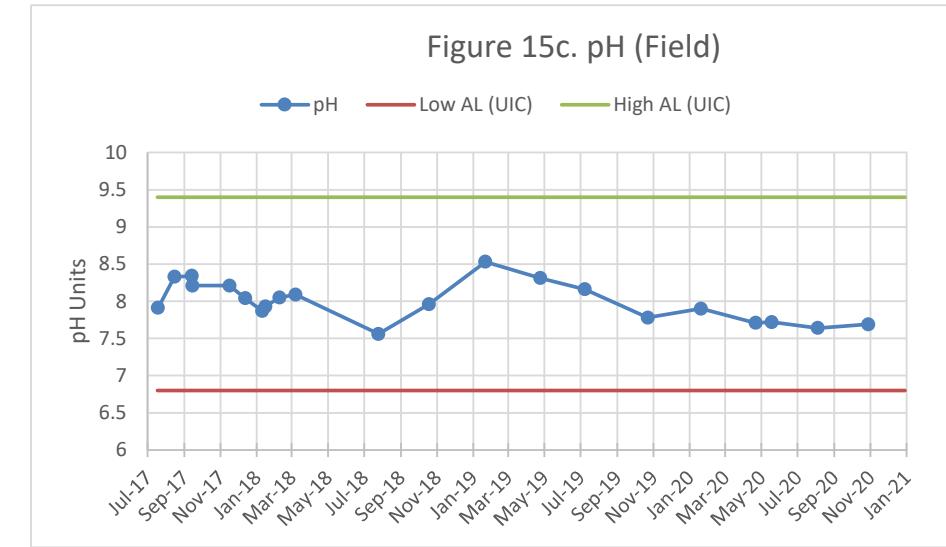
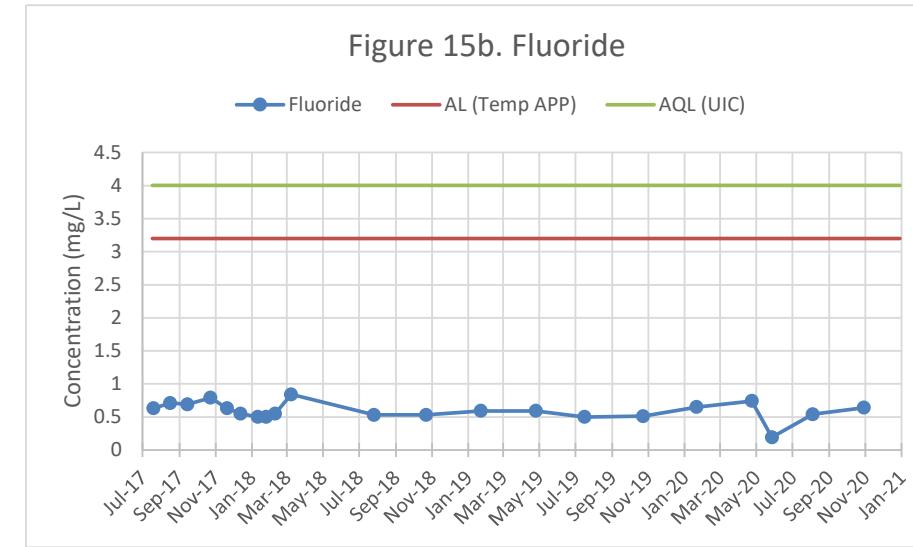
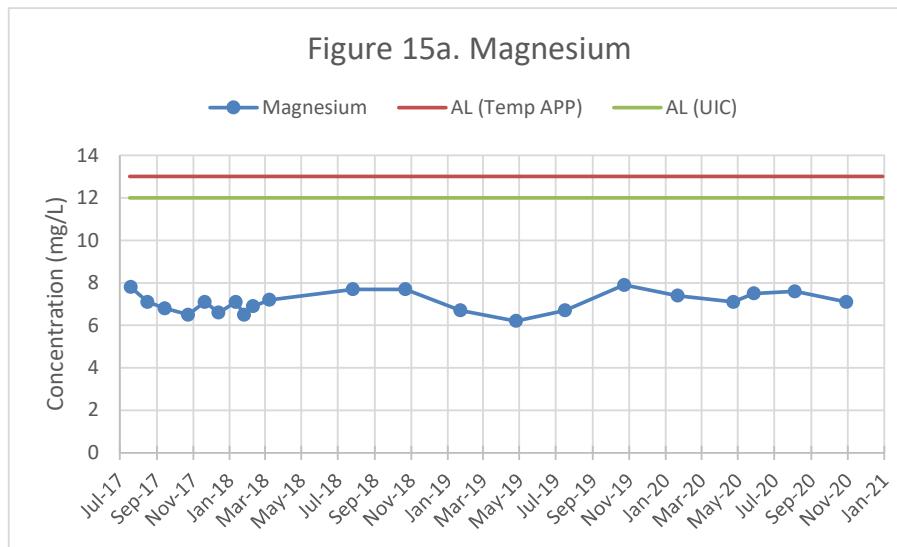
AQL = Aquifer Quality Limit

Temp APP = Temporary APP No P-106360

UIC = Underground Injection Control

UIC = UIC Permit No. R9UIC-AZ3-FY11-1

M61-LBF QUARTERLY CONCENTRATION GRAPHS



Notes:

AL = Alert level

APP = Aquifer Protection Permit

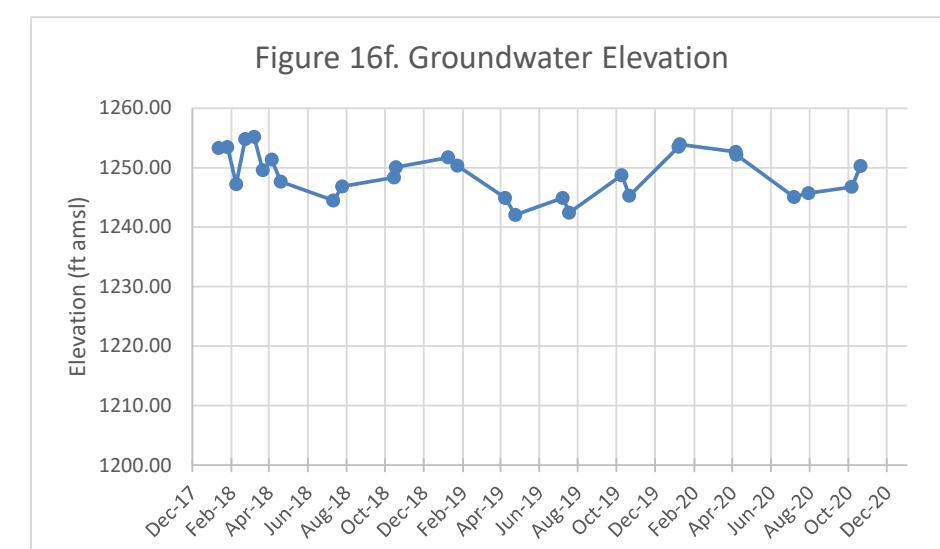
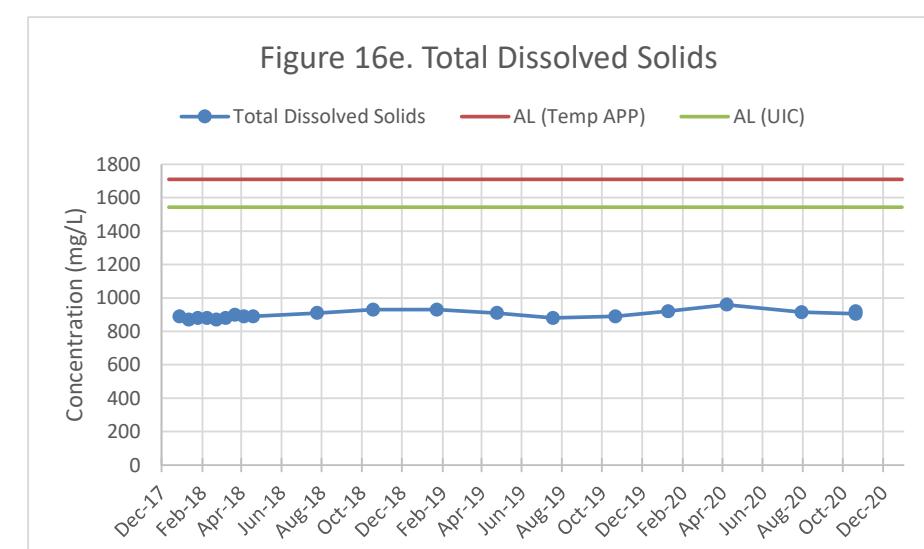
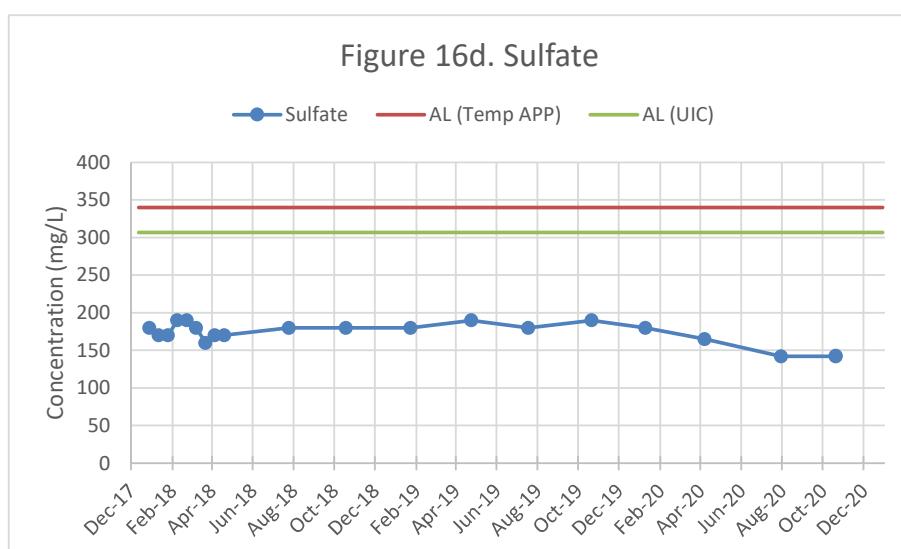
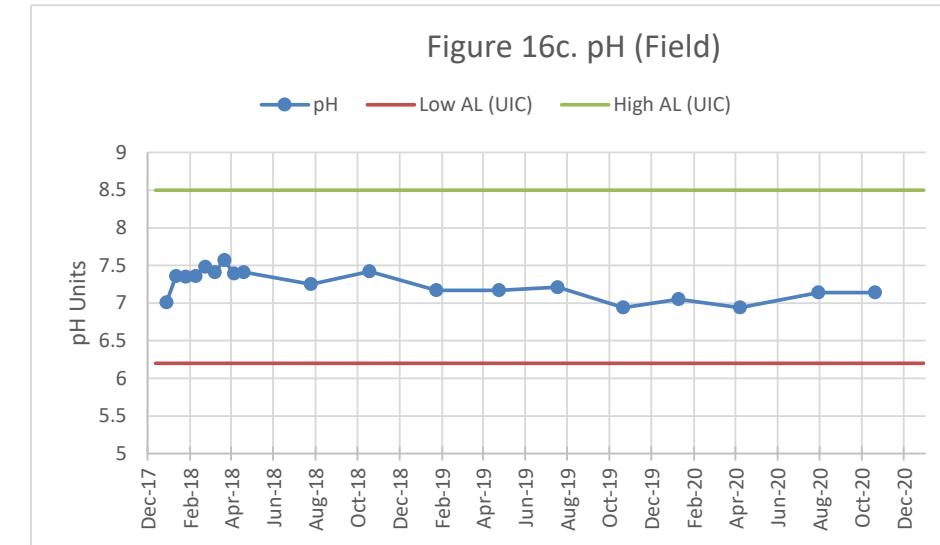
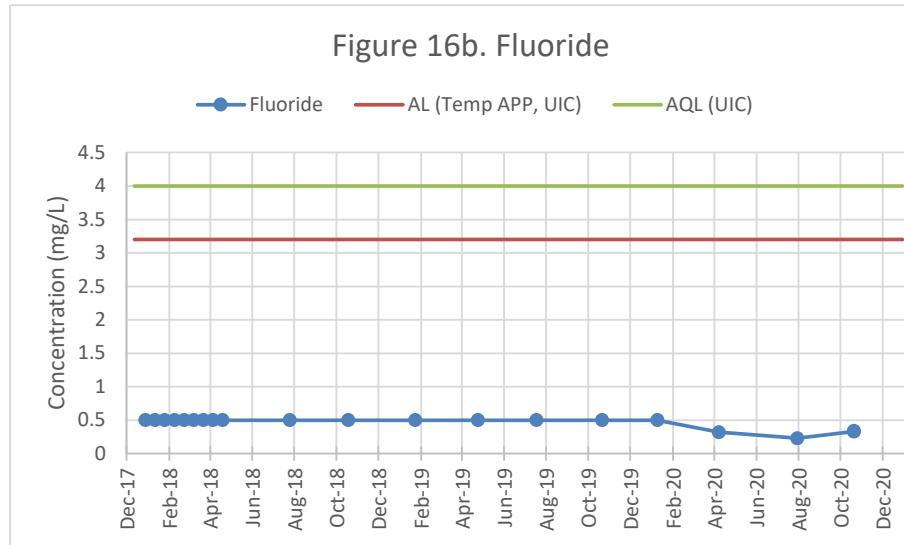
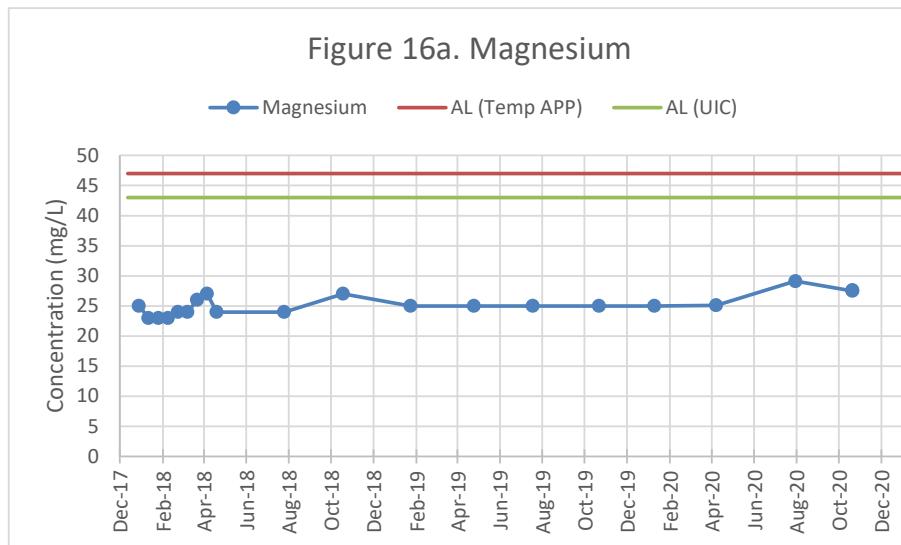
AQL = Aquifer Quality Limit

Temp APP = Temporary APP No P-106360

UIC = Underground Injection Control

UIC = UIC Permit No. R9UIC-AZ3-FY11-1

MW-01-LBF QUARTERLY CONCENTRATION GRAPHS



Notes:

AL = Alert level

APP = Aquifer Protection Permit

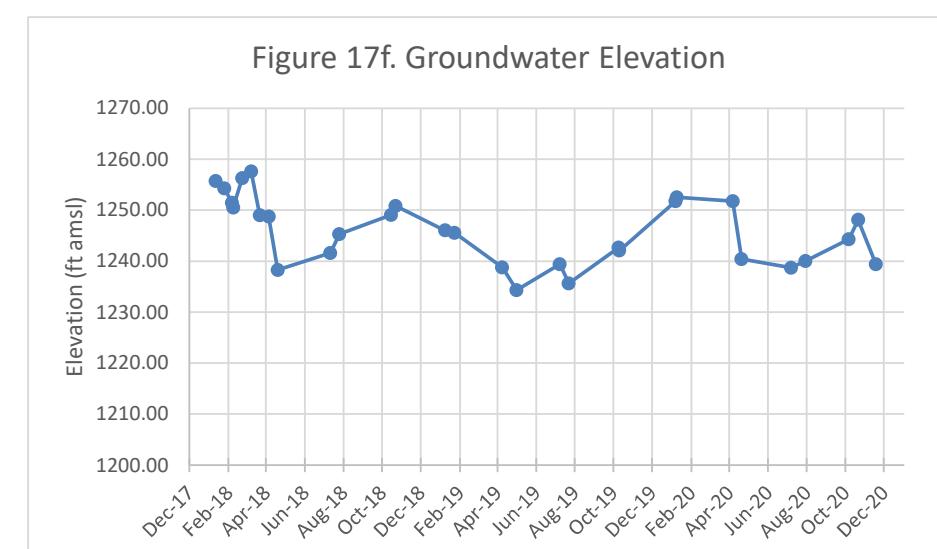
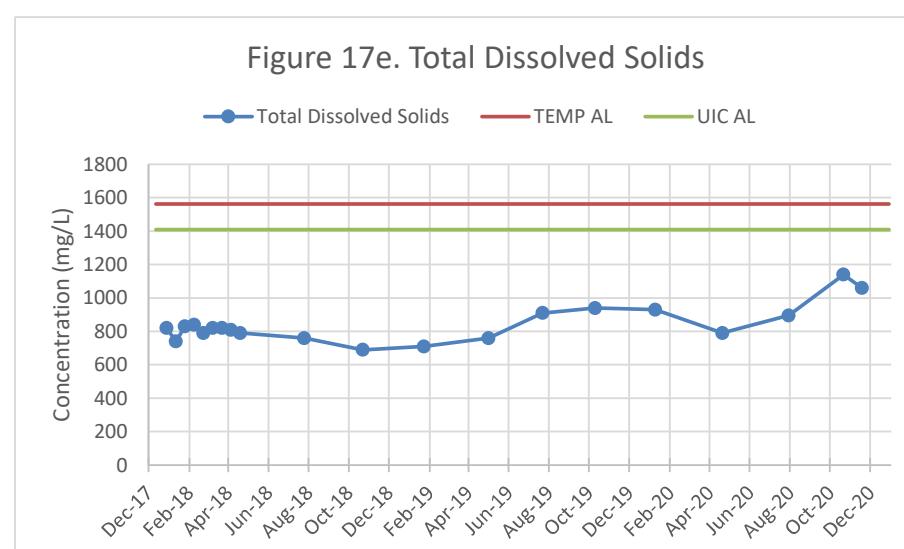
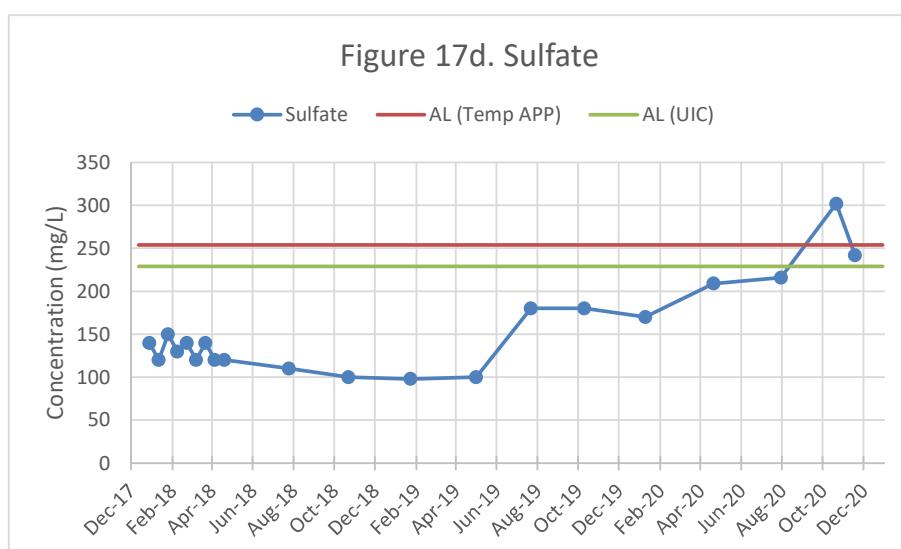
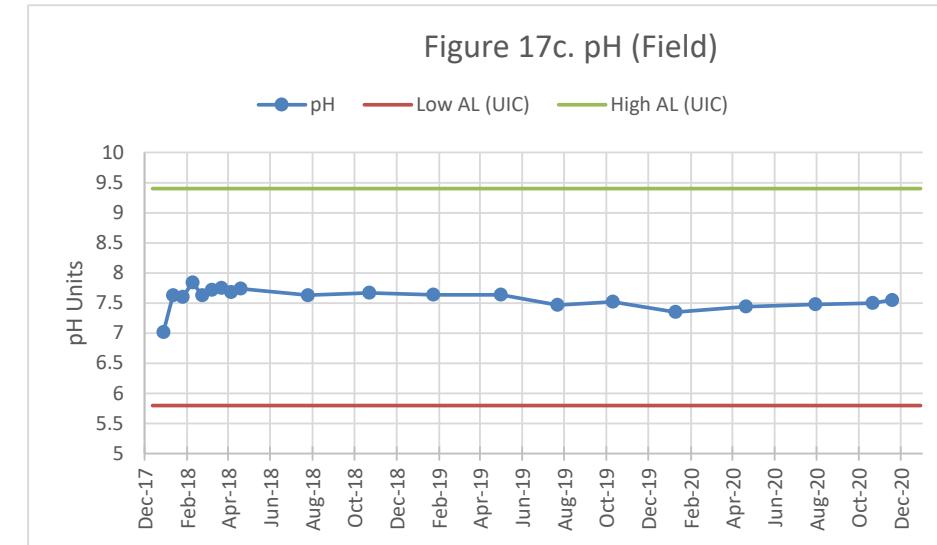
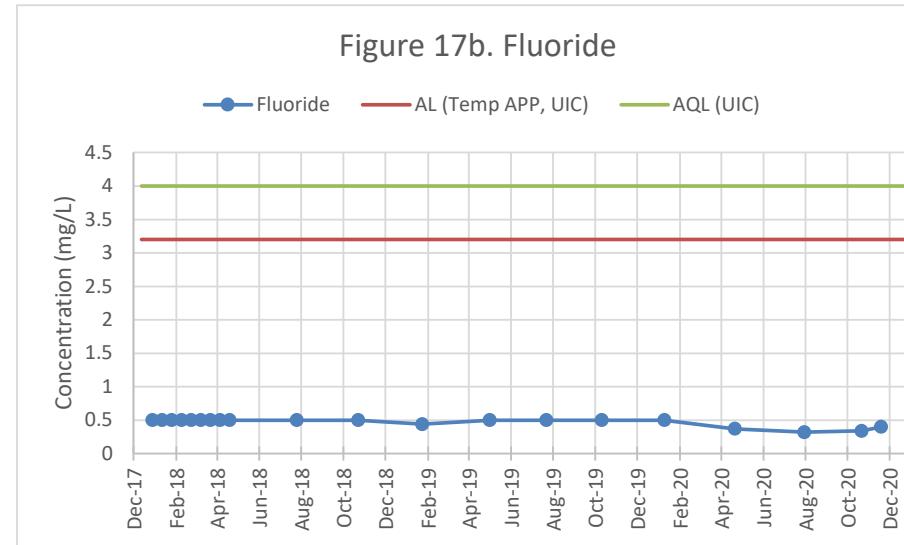
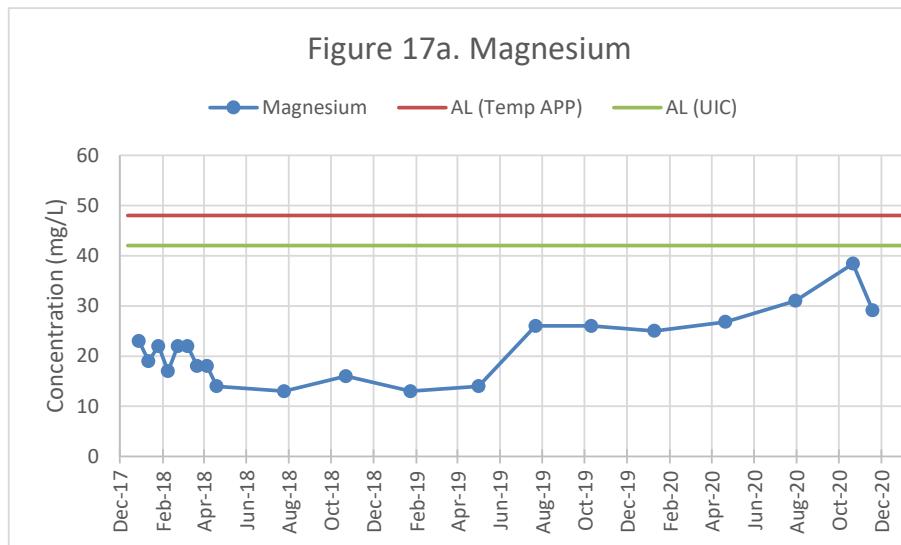
AQL = Aquifer Quality Limit

Temp APP = Temporary APP No P-106360

UIC = Underground Injection Control

UIC = UIC Permit No. R9UIC-AZ3-FY11-1

MW-01-O QUARTERLY CONCENTRATION GRAPHS



Notes:

AL = Alert level

APP = Aquifer Protection Permit

AQL = Aquifer Quality Limit

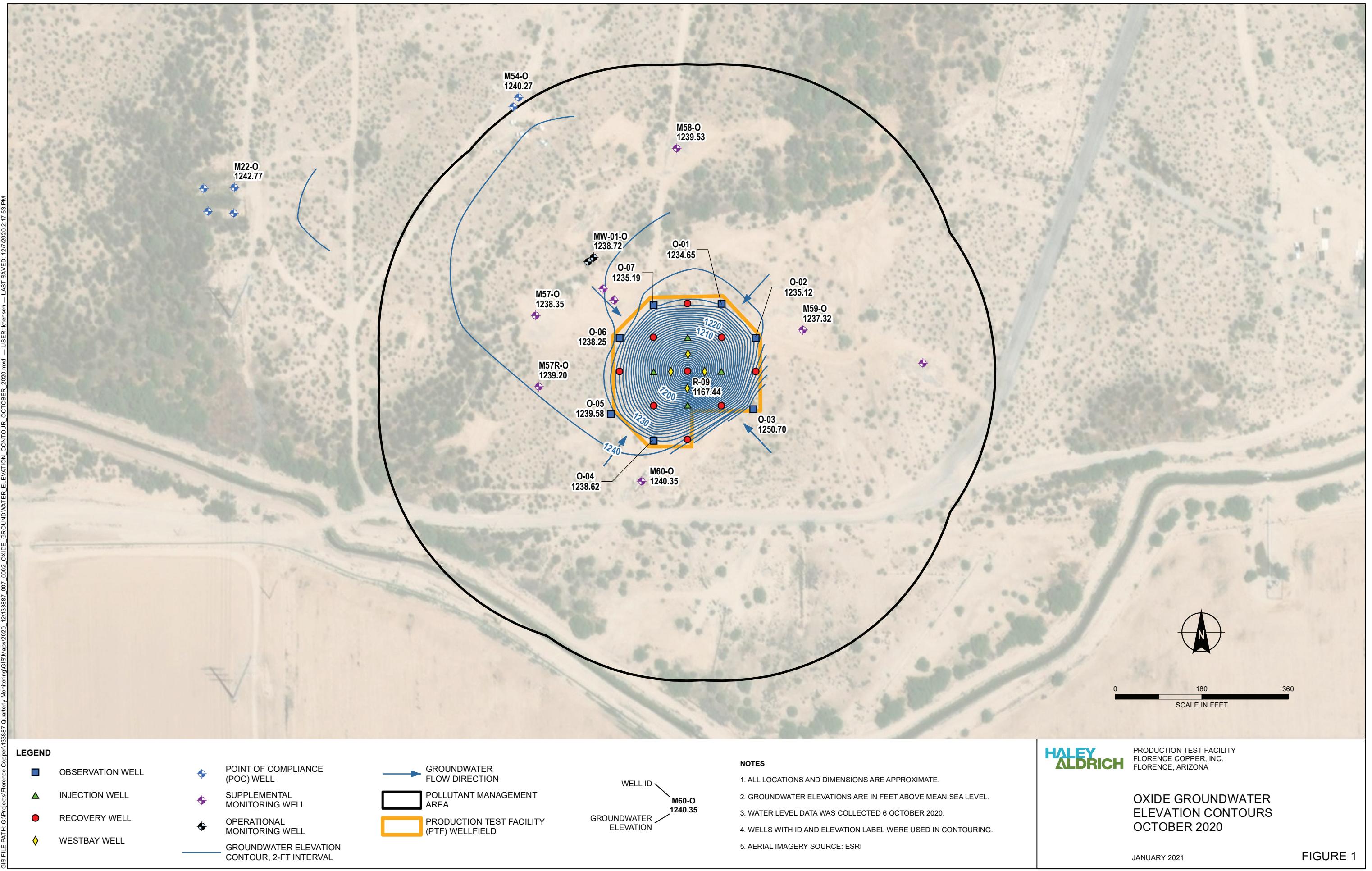
Temp APP = Temporary APP No P-106360

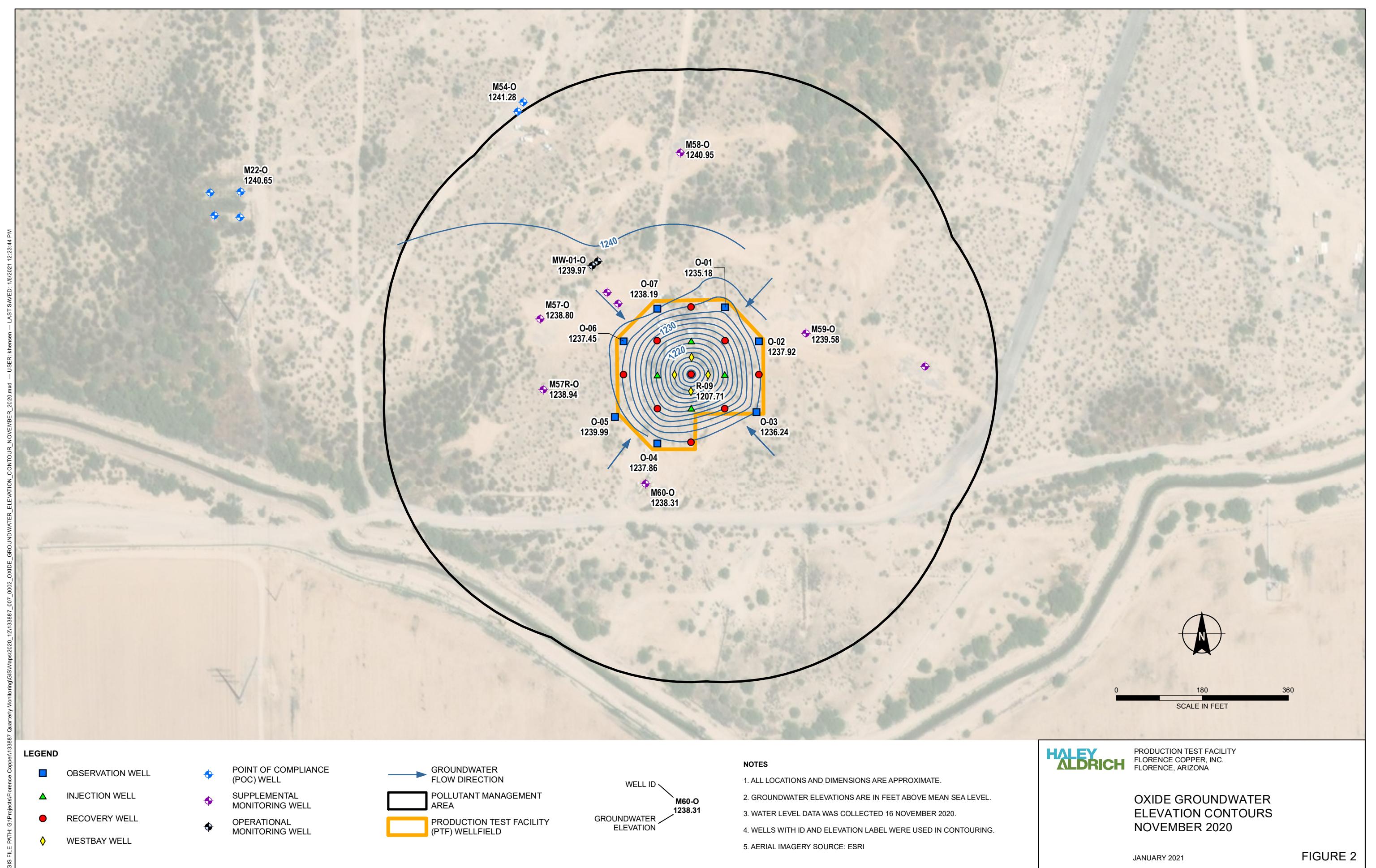
UIC = Underground Injection Control

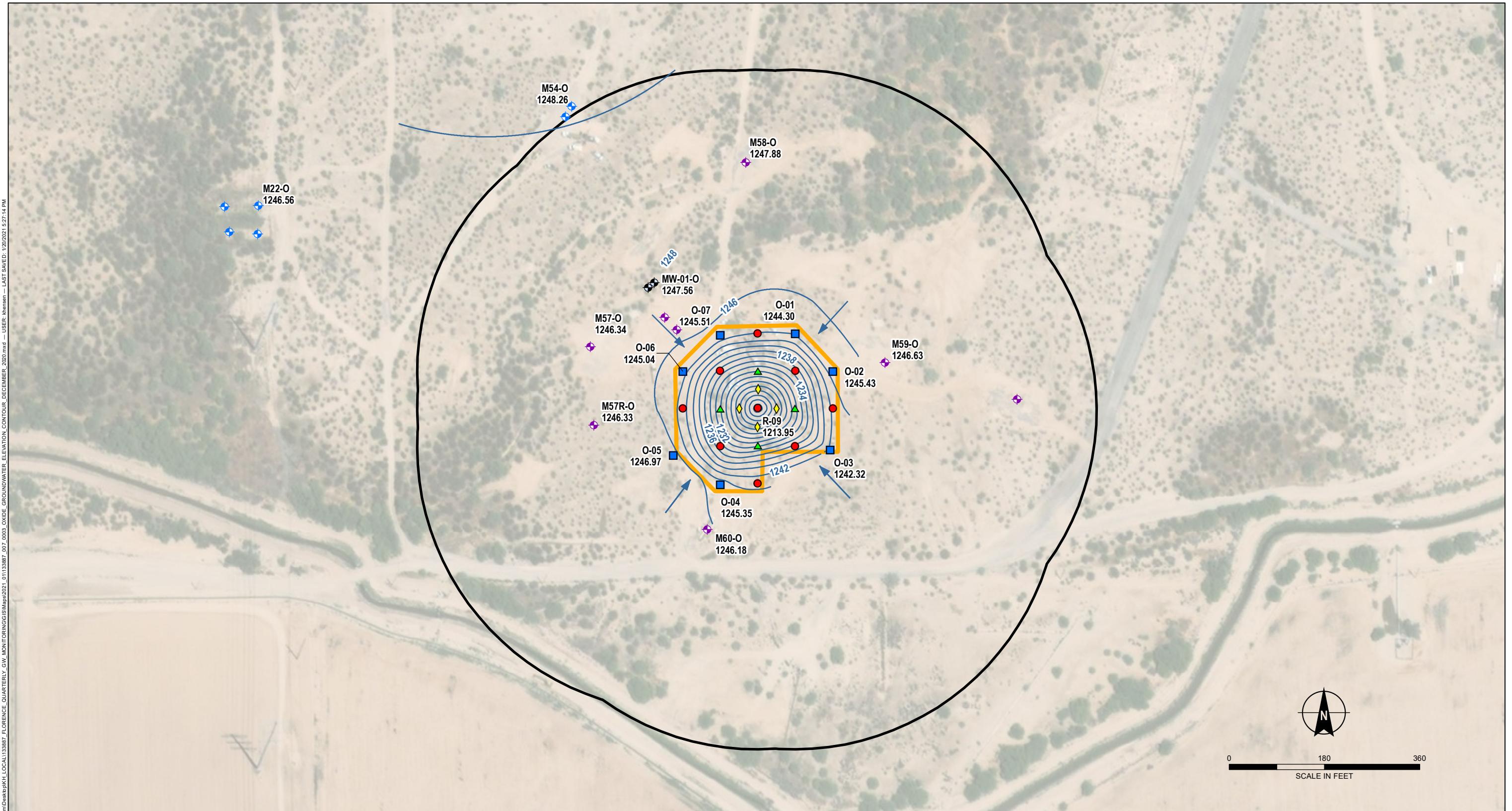
UIC = UIC Permit No. R9UIC-AZ3-FY11-1

ATTACHMENT 8

Area Groundwater Elevation Contour Maps







3D GIS FILE PATH: C:\Users\kenshenshen\OneDrive - haley\adrich.com\Desktop\K.LOCAL\133887_00_0003.OXDE.GROUNDWATER.ELEVATION.CONTOUR.DECEMBER_2020.mxd — USER: kenshen — LAST SAVED: 1/20/2021 5:27:14 PM

LEGEND

- OBSERVATION WELL
 - ▲ INJECTION WELL
 - RECOVERY WELL
 - ◆ POINT OF COMPLIANCE (POC) WELL
 - ◆ SUPPLEMENTAL MONITORING WELL
 - ◆ OPERATIONAL MONITORING WELL



WELL ID
M60-O
1246.18

GROUNDWATER ELEVATION

NO

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
 2. GROUNDWATER ELEVATIONS ARE IN FEET ABOVE MEAN SEA LEVEL.
 3. WATER LEVEL DATA WAS COLLECTED 1 DECEMBER 2020
 4. WELLS WITH ID AND ELEVATION LABEL WERE USED IN CONTOURING.
 5. AERIAL IMAGERY SOURCE: ESRI

**HALEY
ALDRICH**

**PRODUCTION TEST FACILITY
FLORENCE COPPER, INC.
FLORENCE, ARIZONA**

**OXIDE GROUNDWATER
ELEVATION CONTOURS
DECEMBER 2020**

JANUARY 2021

FIGURE 3

ATTACHMENT 9

Table of Monitor Well Details and Water Levels

Q4 2020 TEMPORARY APP AND

UIC MONITORING WELL DETAILS

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 1. Well Details

Well ID	Well Type	ADWR #	Total Well Depth (ft bgs)	Latitude	Longitude	Screened Interval (ft bgs)	Aquifer Unit
M14-GL	POC	55-549172	838	33°03'4.0"N	111°26'15.77"W	778-838	LBFU
M15-GU	POC	55-547813	594	33°03'4.04"N	111°26'16.40"W	554-594	LBFU
M22-O	POC	55-555831	1,130	33°03'4.53"N	111°26'15.76"W	932-1,130	OXIDE
M23-UBF	POC	55-555824	250	33°03'4.51"N	111°26'16.50"W	210-250	UBFU
M54-LBF	POC	55-226792	629	33°03'7.07"N	111°26'9.29"W	310-629	LBFU
M54-O	POC	55-226798	1,199	33°03'6.91"N	111°26'9.22"W	668-1,199	OXIDE
M52-UBF	POC	55-226788	274	33°03'11.03"N	111°25'24.66"W	200-274	UBFU
M55-UBF	Monitor	55-226797	261	33°03'1.99"N	111°26'6.18"W	240-261	UBFU
M56-LBF	Monitor	55-226795	340	33°03'2.21"N	111°26'6.44"W	320-340	LBFU
M57-O	Monitor	55-226790	1,200	33°03'1.88"N	111°26'8.39"W	523-1,200	OXIDE
M58-O	Monitor	55-226794	1,200	33°03'5.20"N	111°26'4.94"W	594-1,200	OXIDE
M59-O	Monitor	55-226791	1,200	33°03'1.58"N	111°26'2.25"W	534-1,200	OXIDE
M60-O	Monitor	55-226796	1,201	33°02'58.70"N	111°26'5.78"W	444-1,201	OXIDE
M61-LBF	Monitor	55-226799	630	33°03'0.85"N	111°25'58.92"W	429-630	LBFU
MW-01-LBF	Operational	55-226789	440	33°03'02.9442"N	111°26'07.1046"W	330-440	LBFU
MW-01-O	Operational	55-226793	1,200	33°03'03.045"N	111°26'06.9786"W	500-1,200	OXIDE
New Wells Constructed or Replaced							
M57R-O	Monitor	55-229751	1,200	33°03'0.31"N	111°26'8.16"W	550-1,200	OXIDE

Notes:

ADWR = Arizona Department of Water Resources

APP = Aquifer Protection Permit

ft bgs = feet below ground surface

LBFU = lower basin fill unit

POC = point of compliance

UBFU = upper basin fill unit

UIC = Underground Injection Control

SUMMARY OF QUARTERLY WATER LEVELS

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Table 2. Water Levels

Location ID	Date	Depth to Water	Description of Measuring Point	Elevation of Measuring Point	Water Level Elevation
		(feet)		(feet amsl)	(feet amsl)
M14-GL	10/06/2020	NM ⁽¹⁾	TOC	1477.12	NM
M14-GL	11/02/2020	NM ⁽¹⁾	TOC	1477.12	NM
M14-GL	12/16/2020	226.77	TOC	1477.12	1250.35
M14-GL	12/21/2020	NM ⁽¹⁾	TOC	1477.12	NM
M15-GU	10/06/2020	231.01	TOC	1476.53	1245.52
M15-GU	10/29/2020	231.39	TOC	1476.53	1245.14
M22-O	10/06/2020	235.38	TOM	1478.58	1243.20
M22-O	10/21/2020	230.65	TOM	1478.58	1247.93
M23-UBF	10/06/2020	220.25	TOM	1477.61	1257.36
M23-UBF	10/28/2020	220.24	TOM	1477.61	1257.37
M52-UBF	10/06/2020	231.30	TOC	1485.04	1253.74
M52-UBF	10/14/2020	231.35	TOC	1485.04	1253.69
M52-UBF	12/01/2020	231.84	TOC	1485.04	1253.20
M54-LBF	10/06/2020	234.64	TOC	1481.92	1247.28
M54-LBF	10/27/2020	234.60	TOC	1481.92	1247.32
M54-O	10/06/2020	238.00	TOC	1482.47	1244.47
M54-O	10/27/2020	237.91	TOC	1482.47	1244.56
M55-UBF	10/06/2020	228.60	TOC	1479.14	1250.54
M55-UBF	10/28/2020	228.34	TOC	1479.14	1250.80
M56-LBF	10/06/2020	232.40	TOC	1478.65	1246.25
M56-LBF	10/28/2020	232.60	TOC	1478.65	1246.05
M57-O	10/06/2020	234.71	TOC	1478.71	1244.00
M57-O	10/27/2020	235.19	TOC	1478.71	1243.52
M57R-O	10/06/2020	233.55	TOC	1478.29	1244.74
M57R-O	10/22/2020	231.72	TOC	1478.29	1246.57
M57R-O	11/18/2020	240.26	TOC	1478.29	1238.03
M58-O	10/06/2020	237.18	TOC	1482.08	1244.90
M58-O	10/21/2020	232.73	TOC	1482.08	1249.35
M59-O	10/06/2020	237.94	TOC	1480.19	1242.25
M59-O	12/01/2020	233.56	TOC	1480.19	1246.63
M59-O	12/29/2020	233.88	TOC	1480.19	1246.31
M60-O	10/06/2020	232.78	TOC	1477.36	1244.58
M60-O	10/08/2020	232.85	TOC	1477.36	1244.51
M60-O	11/05/2020	233.32	TOC	1477.36	1244.04
M60-O	12/10/2020	228.42	TOC	1477.36	1248.94
M61-LBF	10/06/2020	243.96	TOC	1480.78	1236.82
M61-LBF	10/29/2020	239.67	TOC	1480.78	1241.11
MW-01-LBF	10/06/2020	232.15	TOC	1478.92	1246.77
MW-01-LBF	10/20/2020	228.65	TOC	1478.92	1250.27
MW-01-O	10/06/2020	234.79	TOC	1479.07	1244.28
MW-01-O	10/21/2020	230.98	TOC	1479.07	1248.09
MW-01-O	11/18/2020	239.70	TOC	1479.07	1239.37
Mine Shaft	10/06/2020	231.59	TOS	1480.40	1248.81
Status of Local Production Wells					
BIA-9R	10/06/2020		Not Pumping		
BIA-10	10/06/2020		Not Pumping		
PW2-1	10/06/2020		Not Pumping		
WW-4	10/06/2020		Not Pumping		

Notes:

(1) Unable to measure due to well equipment configuration

amsl = above mean sea level

NM = not measured

TOC = top of casing

TOM = top of monument

TOS = top of stickup

ATTACHMENT 10

Groundwater Sampling Results for Point of Compliance and Best Available Demonstrated Control Technology Wells

TECHNICAL MEMORANDUM

28 January 2021
File No. 133887-007

TO: Florence Copper Inc.
Brent Berg
General Manager

FROM: Haley & Aldrich, Inc.
Sarah Cooper, P.E.
Technical Specialist
Mark Nicholls, R.G.
Lead Hydrogeologist

SUBJECT: Florence Copper Project, Quarterly Compliance Monitoring Report
Temporary Aquifer Protection Permit (APP) and Underground Injection Control (UIC)
Permit, Fourth Quarter 2020



Haley & Aldrich, Inc. has prepared this memorandum to present the results of the quarterly compliance groundwater monitoring conducted during the fourth quarter (Q4) 2020 at the Florence Copper Project. The Florence Copper Project is subject to three related permits issued by the Arizona Department of Environmental Quality (ADEQ) and the U.S. Environmental Protection Agency (USEPA).

APP Covering the 1997-98 BHP Pilot Facilities and Future Operations (Sitewide APP):

- ADEQ APP No. P-101704 (LTF 65804) dated 13 October 2017¹.

Permits Covering the Current Production Test Facility:

- ADEQ APP No. P-106360 (LTF 86828) dated 16 December 2020 (Temporary APP)², and
- USEPA UIC Permit No. R9UIC-AZ3-FY11-1 dated 20 December 2016.

¹ ADEQ APP No. P-101704 was amended on 8 December 2020 (LTF 76820). Section 2.5.3.5 of the amended permit specifies that quarterly compliance groundwater monitoring for point of compliance wells shall commence within the first calendar quarter after the effective date of the permit (i.e., Q1 2021). Therefore, groundwater monitoring and associated reporting for Q4 2020 has been conducted in accordance with APP No. P-101704, LTF65804 issued 13 October 2017.

² Note that the Temporary APP permit expired in December 2020, and future monitoring of discharging facilities covered by the Temporary APP permit has been incorporated into amended APP No. P-101704.

This report presents the results of the Q4 2020 groundwater monitoring activities required by the Temporary APP and UIC permit.

Sampling Activities

During Q4 2020, monitoring was conducted at 16 point of compliance, monitoring, and supplemental wells, and one replacement well (M57R-O) not incorporated into the Temporary APP or UIC permit. Water levels were collected on 6 October 2020, and quarterly groundwater sampling was conducted between 8 October and 29 December 2020. Groundwater sampling and analysis was conducted in accordance with the requirements of Sections 2.5.3 and 2.5.8 of the Temporary APP and Part II.F of the UIC permit.

The majority of the monitoring wells are equipped with low-flow bladder pumps. Low-flow sampling was conducted in accordance with Section 2.5.3 of the Temporary APP. Wells M14-GL, M22-O, M57-O, and M59-O were equipped with stainless steel electric submersible pumps and were sampled by purging a minimum of three borehole volumes. No modified sampling procedures were used.

Each sample was labeled, placed in a cooler with ice, maintained at 4 degrees Celsius ($^{\circ}\text{C}$) $\pm 2^{\circ}\text{C}$, and transported under chain of custody to Pace Analytical (Pace) for analysis. Samples were analyzed for the quarterly (Level 1) monitoring parameters listed in Table 4.1-6 of the Temporary APP and Table 1 of the UIC permit, as well as the semi-annual (Level 2) monitoring parameters in Table 4.1-7 of the Temporary APP and Table 2 of the UIC permit. Sample containers collected for radiological parameter analysis were labelled and transported under chain of custody directly to Radiation Safety Engineering, Inc. who performed the analyses as a subcontractor to the primary laboratory. Additionally, two split samples collected for radiological analysis were labelled and transported under chain of custody to Test America for analysis during the quarter. Note that uranium activity and adjusted gross alpha are analyzed and reported only when gross alpha results exceed 12 picocuries per liter (pCi/L), except at wells M52-UBF, M54-LBF, and M54-O, where those parameters are always analyzed and reported.

Monthly monitoring of well M60-O which began in January 2020 was continued during Q4 2020 due to a Temporary APP alert level (AL) exceedance of gross alpha confirmed in Q4 2019. Monthly samples collected from M60-O were analyzed for the quarterly (Level 1) monitoring parameters and various radiological parameters as discussed further below.

Results

The results of the Q4 2020 monitoring event are presented in Tables 1 through 6 as follows:

- Table 1 – Q4 2020 Field Parameters;³
- Table 2 – Q4 2020 Quarterly (Level 1) Analytical Parameters; and
- Table 3 – Q4 2020 Inorganic Parameters;
- Table 4 – Q4 2020 Radiochemical Parameters;

³ Note that turbidity was monitored as a field parameter in addition to field pH, temperature, and specific conductance, but is not required by the Temporary APP or UIC permit and is therefore not reported.

- Table 5 – Q4 2020 Organic Parameters; and
- Table 6 – Q4 2020 Trace Metals.

The Q4 2020 results were compared to the ALs and Aquifer Quality Limits (AQL) listed in the applicable tables in Section 4.0 of the Temporary APP, Appendix K of the UIC permit, and Table 4B of the document submitted to the USEPA dated 12 December 2018 and entitled *Procedures for Determining Alert Levels and Aquifer Quality Limits for Groundwater Compliance Monitoring*. The Q4 2020 results for replacement well M57R-O were compared to the proposed ALs and AQLs submitted by Florence Copper Inc. (Florence Copper) to ADEQ and USEPA in the letter entitled *Proposed Alert Levels and Aquifer Quality Limits for Replacement Supplemental Monitoring Well M57R-O* and dated 27 March 2020.

A quality assurance/quality control summary of the Q4 2020 data is provided in Appendix A.

Q4 2020 AL AND AQL EXCEEDANCES

The following AQL exceedances occurred in Q4 2020, and are described in more detail under the *Contingency Sampling Plans* section:

Well	AQL Exceedance (Permit)
M59-O	Adjusted gross alpha – (UIC) Gross beta – (UIC) Radium 226+228 – (UIC)
M60-O	Adjusted gross alpha – (UIC)

The following AL exceedances occurred in Q4 2020, and are described in more detail under the *Contingency Sampling Plans* section:

Well	AL Exceedance (Permit)	Current Status
M57R-O	Sulfate - (None) ⁴	Voluntary quarterly monitoring scheduled for Q1 2021
M58-O	Gross alpha – (Temporary APP)	Resolved
M59-O	Magnesium – (Temporary APP and UIC) Sulfate – (Temporary APP and UIC) Total Dissolved Solids – (Temporary APP and UIC) Total uranium – (UIC) Gross alpha – (Temporary APP) Adjusted gross alpha – (Temporary APP and UIC) Gross beta – (UIC) Radium 226+228 – (Temporary APP and UIC)	Investigation Ongoing, Reports Due to ADEQ and EPA 17 February 2021
M60-O	Gross alpha – (Temporary APP) Adjusted gross alpha – (UIC) Radon – (UIC)	Monthly Monitoring Ongoing
MW-01-O	Sulfate – (UIC) Gross alpha – (Temporary APP)	Resolved

⁴ M57R-O is not regulated under the Temporary APP or UIC Permit. It did, however, exceed its proposed Temporary APP and UIC sulfate ALs submitted to ADEQ and EPA for review on 27 March 2020.

Contingency Sampling Plans

Contingency sampling plan procedures consistent with Section 2.6.2.4 of the Temporary APP and Part II.H.2 of the UIC permit were implemented during Q4 2020 when initial sample results for five wells indicated one or more potential AL or AQL exceedances.

M57R-O

On 16 November 2020, Florence Copper was notified of a potential exceedance of the Temporary APP AL and UIC AL for sulfate in M57R-O based on the sample collected on 22 October 2020. Sulfate was reported at 378 milligrams per liter (mg/L), above the proposed Temporary APP AL of 224 mg/L and the proposed UIC AL of 230 mg/L. All other parameters were below their respective ALs.

Though M57R-O is not regulated under any of the permits which authorize Florence Copper operations, Florence Copper elected to evaluate the potential exceedances in general accordance with the Temporary APP and UIC permit. On 16 November 2020, Florence Copper requested laboratory confirmation of the initial sulfate sample result in accordance with Section 2.6.2.4.1 of the Temporary APP. The laboratory confirmed the result accuracy on 24 November 2020. In accordance with Section 2.6.2.4.1 of the Temporary APP and Part II.H.2.a of the UIC, Florence Copper collected a verification sample from M57R-O on 18 November 2020. On 9 December 2020, Florence Copper was notified that the sulfate concentration in the verification sample was reported at 456 mg/L, above both the proposed Temporary APP and UIC ALs. Because M57R-O is not regulated by any permit, no further action was taken. A quarterly sample is scheduled to be collected in Q1 2021.

M58-O

On 16 November 2020, Florence Copper was notified of a potential exceedance of the Temporary APP AL for gross alpha in M58-O based on the sample collected on 21 October 2020. Gross alpha was reported at 21.9 ± 1.0 pCi/L, above the Temporary APP AL of 15 pCi/L. All other parameters, including adjusted gross alpha, were below their respective ALs.

In accordance with the requirements of Section 2.6.2.4.1 of the Temporary APP, Florence Copper requested laboratory confirmation of the gross alpha result on 16 November 2020. The laboratory confirmed the initial result accuracy on 1 December 2020. Florence Copper notified ADEQ of the AL exceedance via MyDEQ (INC11917) on 25 November 2020. As documented in the MyDEQ notification, no contingency actions are required because adjusted gross alpha, which has an established Aquifer Water Quality Standard (AWQS), was below the AL. On 3 December 2020, Florence Copper received a notification that MyDEQ incident INC11917 had been reviewed and the status set to resolved. No further action was necessary.

M59-O

On 28 December 2020, Florence Copper was notified of the following potential exceedances in well M59-O based on the sample collected on 1 December 2020:

Parameter	Parameter Type (Temporary APP Designation)	Result	Type of Potential Exceedance – (AL or AQL)
Magnesium	Indicator	57.2 mg/L	Temporary APP AL – (27 mg/L) UIC AL – (23 mg/L)
Sulfate	Indicator	865 mg/L	Temporary APP AL – (234 mg/L) UIC AL – (202 mg/L)
Total dissolved solids (TDS)	Indicator	1,860 mg/L	Temporary APP AL – (947 mg/L) UIC AL – (854 mg/L)
Total Uranium	Indicator	0.037 mg/L	UIC AL – (0.0052 mg/L)
Gross Alpha	Indicator	91.1 ± 3.4 pCi/L	Temporary APP AL – (15 pCi/L)
Adjusted Gross Alpha	Parameter with AWQS	73.5 ± 3.7 pCi/L	Temporary APP AL – (26.5 pCi/L) UIC AL and AQL – (Both 15.8 pCi/L)
Gross Beta	Parameter with AWQS	43.2 ± 2.7 pCi/L	UIC AL and AQL – (Both 16 pCi/L)
Radium 226+228	Parameter with AWQS	19.8 ± 0.8 pCi/L	Temporary APP AL – (17.2 pCi/L) UIC AL and AQL – (Both 6.9 pCi/L)

Notes:

AL = alert level
APP = Aquifer Protection Permit
AQL = aquifer quality limit
AWQS = Aquifer Water Quality Standard
mg/L = milligrams per liter
pCi/L = picocuries per liter
UIC = Underground Injection Control

In accordance with the requirements of Section 2.6.2.4.2 of the Temporary APP, Florence Copper notified ADEQ of the potential adjusted gross alpha (INC12002) and radium 226+228 (INC12003) exceedances via MyDEQ on 31 December 2020.

In accordance with the requirements of Section 2.6.2.4.1 of the Temporary APP, Florence Copper requested laboratory confirmation of the indicator parameter initial results (i.e., magnesium, sulfate, total dissolved solids [TDS], and gross alpha) on 29 December 2020. The laboratory confirmed the initial magnesium result on 31 December 2020 and Florence Copper notified ADEQ of the potential magnesium exceedance (INC12008) on 5 January 2021. The laboratory confirmed the initial accuracy of the other listed indicator parameters on 6 January 2021 and Florence Copper notified ADEQ of the potential sulfate (INC12015), TDS (INC12016), and gross alpha (INC12017) exceedances on 8 January 2021.

A verification sample was collected from M59-O on 29 December 2020 in accordance with Section 2.6.2.4 of the Temporary APP and Part II.H.2 of the UIC Permit. On 18 January 2021, Florence Copper was notified that the results of the verification sample confirmed each of the potential exceedances listed in the table above. All other parameters were below their respective ALs and AQLs.

Florence Copper notified ADEQ of the confirmed Temporary APP exceedances via MyDEQ (INC12002, INC12003, INC12008, INC12015, INC12016, and INC12017) on 20 January 2021. Florence Copper notified USEPA of the confirmed UIC exceedances on 22 January 2021. An investigation of the exceedances is underway and reports documenting the cause, impacts, and mitigation of the discharge(s) responsible for the exceedances will be submitted to USEPA and ADEQ by 17 February 2021 in accordance with permit requirements. In accordance with the requirements of the Temporary APP, Florence Copper will initiate monthly monitoring of the quarterly monitoring parameters plus gross alpha, adjusted gross alpha, and radium 226+228 beginning in February 2021.

M60-O

During Q3 2020, Florence Copper collected a monthly sample from well M60-O on 24 September 2020 due to the unresolved status of ADEQ's INC11616, in which Florence Copper reported a continuing gross alpha exceedance result from the 10 August 2020 sample. The 24 September 2020 gross alpha result of 54.6 ± 1.8 pCi/L continued to exceed the Temporary APP AL. In addition, three new potential exceedances, all pertaining to adjusted gross alpha, were identified. Adjusted gross alpha in the 24 September 2020 sample was reported at 29.9 ± 3.8 pCi/L, above the UIC AL and AQL of 17.4 pCi/L and the Temporary APP AL of 26.5 pCi/L.

OCTOBER 2020

A verification sample was collected in conjunction with the quarterly Q4 2020 sample on 8 October 2020. On 29 October 2020 Florence Copper was notified of the following sample results:

- The gross alpha result of 47.8 ± 1.6 pCi/L continued to exceed the Temporary APP AL of 15 pCi/L;
- The adjusted gross alpha result of 18.7 ± 2.5 pCi/L dismissed the potential exceedance of Temporary APP AL of 26.5 pCi/L;
- The adjusted gross alpha result of 18.7 ± 2.5 pCi/L confirmed the exceedance of the UIC AL and AQL of 17.4 pCi/L;
- The radon result of $2,971.5 \pm 298.2$ pCi/L introduced a new potential exceedance of the UIC AL of 2,480 pCi/L.

All other results were below their applicable ALs and AQLs.

Gross Alpha

Florence Copper notified ADEQ of the continued Temporary APP AL exceedance of gross alpha (INC11706) via MyDEQ on 28 October 2020.

On 26 November 2020, Florence Copper submitted a 30-day report for the gross alpha Temporary APP AL exceedance regarding the cause, impacts, or mitigation of the discharge responsible for the exceedance (INC11706). The investigation indicates that the hydraulic control of the Production Test Facility (PTF) had been maintained as required and that the exceedance does not appear to be related to solutions migrating from the wellfield. This conclusion was based on the fact that elevated concentrations (above ambient concentrations) for gross alpha in the well were documented 2 months prior to the wellfield operation commencement and no parameters that are indicative of the solutions injected into the wellfield (i.e., quarterly groundwater compliance parameters) showed elevated concentrations in the well. Florence Copper indicated that various mitigation measures had been implemented following the confirmed exceedance, including additional pumping and redevelopment of the M60-O and nearby wells, and that monthly monitoring would continue.

On 30 November 2020, Florence Copper received a notification that the MyDEQ incident was under review, and that no further notifications of the monthly monitoring is required through MyDEQ. Instead, monthly monitoring results will be reported in quarterly compliance monitoring reports only.

Adjusted Gross Alpha

Florence Copper notified ADEQ of the dismissed Temporary APP AL exceedance of adjusted gross alpha (INC11707) via MyDEQ on 28 October 2020. On 29 October 2020, Florence Copper received a notification that the MyDEQ INC11707 had been reviewed and the status set to resolved. No further action was required.

In accordance with Part II.H.2.b of the UIC, Florence Copper notified the USEPA of the confirmed adjusted gross alpha AL and AQL exceedance on 29 October 2020 and followed up with the 30-day report evaluating the cause, impacts, and mitigation of the exceedance on 27 November 2020. The report indicates that the hydraulic control of the PTF had been maintained as required and that the exceedance does not appear to be related to solutions migrating from the wellfield. This conclusion was based on the fact that elevated concentrations (above ambient concentrations) for gross alpha in the well were documented 2 months prior to the wellfield operation commencement and no parameters that are indicative of the solutions injected into the wellfield (i.e., Level 1 parameters) showed elevated concentrations in the well. Florence Copper indicated that various mitigation measures had been implemented following the confirmed exceedance, including additional pumping and redevelopment of the M60-O and nearby wells. The report also indicates that should the adjusted gross alpha exceedance continue, Florence Copper will collect samples from upgradient oxide monitoring wells M24-O and P49-O for radiochemistry analysis.

Radon

Radon verification sampling was conducted as required by the UIC permit in conjunction with the November monthly monitoring event on 5 November 2020.

NOVEMBER 2020

November monthly monitoring of well M60-O was performed on 5 November 2020. On 1 December 2020, Florence Copper was notified of the following results from the 5 November 2020 monitoring event:

- The gross alpha result of 40.8 ± 1.5 pCi/L continued to exceed the Temporary APP AL of 15 pCi/L; and
- The radon result of $3,015.8 \pm 302.5$ pCi/L confirmed the exceedance of the UIC AL of 2,480 pCi/L.

All other parameters were below their respective ALs and AQLs.

Based on previous correspondence with ADEQ, notification of the monthly monitoring results through MyDEQ was discontinued after the October 2020 event reporting. Monthly sampling results are presented in this quarterly compliance groundwater monitoring report.

In response to the confirmation of the radon UIC AL exceedance, Florence Copper submitted a notification to the USEPA on 2 December 2020 and subsequently, a 30-day report evaluating the cause, impacts, and mitigation of the exceedance on 31 December 2020. The report indicates that the hydraulic control of the PTF had been maintained as required and that the exceedance does not appear to be related to solutions migrating from the wellfield since no parameters that are indicative of the solutions injected into the wellfield (i.e., Level 1 parameters) showed elevated concentrations in the well. Florence Copper indicated that following confirmation of the exceedance, the well had been redeveloped and that increased frequency monitoring was scheduled to continue.

DECEMBER 2020

The December monthly monitoring event was performed on 10 December 2020. On 30 December 2020, Florence Copper was notified of the following sample results:

- The gross alpha result of 52.2 ± 1.8 pCi/L continued to exceed the Temporary APP AL of 15 pCi/L; and
- The adjusted gross alpha result of 20.4 ± 2.7 pCi/L was above the UIC AL and AQL of 17.4 pCi/L.

All other parameters were below their respective ALs and AQLs.

In response to the potential adjusted gross alpha exceedance and in accordance with Part II.H.2.b of the UIC, a verification sample was collected in conjunction with the January quarterly monitoring event on 7 January 2021. The results of the verification sample are currently pending.

MW-01-O

On 16 November 2020, Florence Copper was notified of the following potential exceedances in well MW-01-O based on the sample collected on 21 October 2020:

- Sulfate was reported at 302 mg/L, above the Temporary APP AL of 254 mg/L and the UIC AL of 229 mg/L; and

- Gross alpha was reported at 26.4 ± 1.8 pCi/L, above the Temporary APP AL of 15 pCi/L.

All other parameters, including adjusted gross alpha, were below their applicable ALs and AQLs.

In accordance with the requirements of Section 2.6.2.4.1 of the Temporary APP, Florence Copper requested laboratory confirmation of the initial sulfate and gross alpha results on 16 November 2020. The laboratory confirmed the initial result accuracy on 24 November 2020.

Sulfate

In response to the potential sulfate exceedance, a verification sample was collected from well MW-01-O on 18 November 2020. Following laboratory confirmation of the initial sample result, Florence Copper notified ADEQ of the potential sulfate AL exceedance (INC11934) on 25 November 2020. On 9 December 2020, Florence Copper was notified that the sulfate concentration in the verification sample was reported at 242 mg/L, dismissing the potential sulfate Temporary APP AL exceedance, and confirming the UIC AL exceedance.

Florence Copper notified ADEQ of the dismissed sulfate exceedance on 16 December 2020. That same day, Florence Copper received a notification that the MyDEQ INC11934 had been reviewed and the status set to resolved. No further action was required.

Florence Copper submitted a notification of the confirmed UIC sulfate AL exceedance to the USEPA on 11 December 2020. A report which evaluated the cause, impacts, and mitigation of the AL exceedance was subsequently submitted to USEPA on 6 January 2021. The report indicates that the hydraulic control of the PTF had been maintained as required. The Q4 2020 sulfate concentrations in the two nearest oxide supplemental monitoring wells (M57-O and M58-O), both located cross gradient to MW-01-O, were both below their respective ALs. The sulfate concentrations in the two nearest downgradient wells (POC wells M54-O and M22-O) were also below their respective ALs. The report also notes that the sulfate concentration in MW-01-O decreased significantly from the initial sample to the verification sample, and that the sulfate concentration is expected to decrease once wellfield rinsing continues.

Gross Alpha

On 25 November 2020, Florence Copper notified ADEQ of the gross alpha AL exceedance. As documented in the MyDEQ notification (INC11935), no contingency actions are required as a result of this exceedance because adjusted gross alpha, which has an established AWQS, was below the AL. On 3 December 2020, Florence Copper received a notification that the MyDEQ incident had been reviewed and the status set to resolved. No further action was required.

Enclosures:

- Table 1 – Q4 2020 Field Parameters
- Table 2 – Q4 2020 Quarterly (Level 1) Analytical Parameters
- Table 3 – Q4 2020 Inorganic Parameters
- Table 4 – Q4 2020 Radiochemical Parameters
- Table 5 – Q4 2020 Organic Parameters
- Table 6 – Q4 2020 Trace Metals
- Appendix A – Data Quality Assurance/Quality Control Summary Memorandum

TABLES

TABLE 1
Q4 2020 FIELD PARAMETERS
FLORENCE COPPER INC.
FLORENCE, ARIZONA

Location	Sample Date	Temperature, Field Deg C	Temperature, Field Deg F	pH, Field pH units	pH Low UIC Alert Level pH units	pH High UIC Alert Level pH units	Specific Conductance, Field μmhos/cm
M14-GL	11/02/2020	28.0	82.4	8.38	NE	NE	1417
M14-GL	12/21/2020	27.2	81.0	8.29	NE	NE	797
M15-GU	10/29/2020	23.1	73.6	7.33	NE	NE	1505
M22-O	10/22/2020	28.5	83.3	8.10	NE	NE	840
M22-O	12/10/2020	27.6	81.7	8.09	NE	NE	835
M23-UBF	10/28/2020	22.8	73.0	7.13	NE	NE	2085
M52-UBF	10/14/2020	23.0	73.4	7.22	6.9	7.9	1436
M52-UBF	12/01/2020	21.8	71.2	7.22	6.9	7.9	1544
M54-LBF	10/27/2020	23.4	74.1	7.24	6.5	8.2	1671
M54-O	10/27/2020	22.2	72.0	7.96	6.8	9.4	902
M55-UBF	10/28/2020	23.0	73.4	7.07	6.6	7.8	1955
M56-LBF	10/28/2020	22.0	71.6	7.19	6.5	8.3	1640
M57-O	10/27/2020	26.5	79.7	7.81	7.2	8.5	993
M57R-O	10/22/2020	24.1	75.4	7.52	7.2	8.5	1629
M57R-O	11/18/2020	23.8	74.8	7.52	7.2	8.5	1785
M58-O	10/21/2020	25.2	77.4	7.30	6.2	9.0	1768
M59-O	12/01/2020	26.1	79.0	7.44	7.0	8.7	2728
M59-O	12/29/2020	26.4	79.5	7.48	7.0	8.7	2833
M60-O	10/08/2020	26.4	79.5	7.34	6.3	9.0	1584
M60-O	11/05/2020	26.8	80.2	7.26	6.3	9.0	2010
M60-O	12/10/2020	22.6	72.7	7.33	6.3	9.0	1645
M61-LBF	10/29/2020	25.4	77.7	7.69	6.8	9.4	802
MW-01-LBF	10/20/2020	25.0	77.0	7.14	6.2	8.5	1622
MW-01-O	10/21/2020	23.7	74.7	7.50	5.8	9.4	1988
MW-01-O	11/18/2020	23.3	73.9	7.55	5.8	9.4	1742

Abbreviations:

Deg C = degrees Celsius

Deg F = degrees Fahrenheit

NTU = Nephelometric Turbidity Units

UIC = Underground Injection Control

NE = not established

μmhos/cm = micromhos per centimeter

TABLE 2

Q4 2020 QUARTERLY (LEVEL 1) ANALYTICAL PARAMETERS

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Location ID	Sample Date	Sample Type	Magnesium, Dissolved			Sulfate			Fluoride					Total Dissolved Solids (TDS)		
			Concentration	TEMP APP Alert Level	UIC Alert Level	Concentration	TEMP APP Alert Level	UIC Alert Level	Concentration	TEMP APP Alert Level	TEMP APP AQL	UIC Alert Level	UIC AQL	Concentration	TEMP APP Alert Level	UIC Alert Level
M14-GL	11/02/2020	Primary	2.1	23	23	58.7	144	144	0.60	3.2	4.0	3.2	4.0	410	874	874
M15-GU	10/29/2020	Primary	27.8	44	44	81.3	126	126	0.45	3.2	4.0	3.2	4.0	700	1359	1359
M22-O	10/22/2020	Primary	6.1	8.6	8.6	51.7	86	86	0.67	3.2	4.0	3.2	4.0	426	1094	1094
M23-UBF	10/28/2020	Primary	33.5	69	69	242	411	411	0.72	3.2	4.0	3.2	4.0	1,040	2392	2392
M52-UBF	10/14/2020	Primary	25.0	45	41	145	351	316	0.84	3.2	4.0	3.2	4.0	836	1666	1502
M54-LBF	10/27/2020	Primary	21.4	46	42	136	329	297	0.81	3.2	4.0	3.2	4.0	850	1731	1561
M54-O	10/27/2020	Primary	6.2	11	10	51.8	200	200	0.61	3.2	4.0	3.2	4.0	423	855	771
M55-UBF	10/28/2020	Primary	31.9	50	45	223	484	425	0.63	3.2	--	3.2	4.0	985	1900	1711
M55-UBF	10/28/2020	Duplicate	32.0	50	45	224	484	425	0.63	3.2	--	3.2	4.0	1,000	1900	1711
M56-LBF	10/28/2020	Primary	26.2	46	41	152	312	281	0.17	3.2	--	3.2	4.0	850	1646	1485
M57-O	10/27/2020	Primary	10.4	20	18	69.5	200	200	0.56	3.2	--	3.2	4.0	468	934	842
M57R-O	10/22/2020	Primary	24.6	36	35	378	224	230	0.60	3.2	--	3.2	4.0	1,050	1079	1113
M57R-O ⁽²⁾	11/18/2020	Primary	5.7	36	35	456	224	230	0.54	3.2	--	3.2	4.0	257	1079	1113
M58-O	10/21/2020	Primary	25.4	59	51	152	435	385	0.53	3.2	--	3.2	4.0	940	1716	1539
M59-O	12/01/2020	Primary	57.2	27	23	865	234	202	0.42	3.2	--	3.2	4.0	1,860	947	854
M59-O ⁽³⁾	12/29/2020	Primary	63.1	27	23	960	234	202	0.48	3.2	--	3.2	4.0	1,800	947	854
M60-O	10/08/2020	Primary	34.3	54	45	198	313	271	0.25	3.2	--	3.2	4.0	1,050	1492	1314
M60-O ⁽⁴⁾	11/05/2020	Primary	29.5	54	45	200	313	271	0.24	3.2	--	3.2	4.0	905	1492	1314
M60-O ⁽⁴⁾	12/10/2020	Primary	28.3	54	45	195	313	271	0.27	3.2	--	3.2	4.0	900	1492	1314
M61-LBF	10/29/2020	Primary	7.1	13	12	53.4	200	200	0.64	3.2	--	3.2	4.0	403	852	769
MW-01-LBF	10/20/2020	Primary	27.5	47	43	142	340	307	0.33	3.2	--	3.2	4.0	905	1711	1543
MW-01-LBF	10/20/2020	Duplicate	27.6	47	43	143	340	307	0.34	3.2	--	3.2	4.0	920	1711	1543
MW-01-O	10/21/2020	Primary	38.4	48	42	302	254	229	0.34	3.2	--	3.2	4.0	1,140	1563	1409
MW-01-O ⁽⁵⁾	11/18/2020	Primary	29.1	48	42	242	254	229	0.40	3.2	--	3.2	4.0	1,060	1563	1409
Arizona Aquifer Water Quality Standard ⁽¹⁾			--	--	--	--	--	--	4.0					--	--	--

Notes:

(1) Arizona Aquifer Water Quality Standard (AWQS), Drinking Water Standard, December 31, 2016.

(2) Verification sampling conducted on 11/18/2020.

(3) Verification sampling conducted on 12/29/2020.

(4) Increased frequency monitoring conducted on 11/5/2020 and 12/10/2020.

(5) Verification sampling conducted on 11/18/2020.

Alert Level Exceedance

All results in milligrams per liter (mg/L)

Detects are **bolded**.

Non-detects are reported to the laboratory method detection limit (< MDL).

AQL = Aquifer Quality Limit

Temp APP = Temporary Aquifer Protection Permit No. 106360

UIC = Underground Injection Control Permit No. R9UIC-AZ3-FY11-1

TABLE 3

Q4 2020 INORGANIC PARAMETERS

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Location	Sample Date	Sample Type	Alkalinity, Bicarbonate	Alkalinity, Carbonate	Dissolved Calcium	Chloride	Nitrate (as N)			Nitrite (as N)			Dissolved Potassium	Dissolved Sodium	pH (Lab)	Specific Conductance (Lab)	Anion/Cation Ratio
			mg/L	mg/L	mg/L	mg/L	UIC AL	UIC AQL	mg/L	UIC AL	UIC AQL	mg/L	mg/L	pH units	umhos/cm	%	
M14-GL	11/02/2020	Primary	61.4	< 2.0	17.8	147	--	--	--	--	--	3.0	139	7.7	722	3.76	
M14-GL ⁽¹⁾	12/21/2020	Primary	--	--	--	--	0.60	--	< 0.0096	--	--	--	--	--	--	--	
M15-GU	10/29/2020	Primary	116	< 2.0	98.1	271	5.6	--	< 0.0096	--	--	5.5	131	7.6	1330	5.05	
M22-O	10/22/2020	Primary	84.6	< 2.0	33.2	121	--	--	--	--	--	3.9	98.0	8.1	740	2.23	
M22-O ⁽¹⁾	12/10/2020	Primary	--	--	--	--	0.37	--	0.056 J	--	--	--	--	--	--	--	
M23-UBF	10/28/2020	Primary	187	< 2.0	154	312	10.3	--	< 0.0096	--	--	5.6	189	7.3	1920	2.84	
M52-UBF	10/14/2020	Primary	179	< 2.0	102	192	--	18.3	18.3	--	0.8	1.0	5.0	145	7.1	1390	5.42
M52-UBF ⁽¹⁾	12/01/2020	Primary	--	--	--	--	8.4	18.3	18.3	< 0.0096	0.8	1.0	--	--	--	--	
M54-LBF	10/27/2020	Primary	184	< 2.0	106	202	7.5	18.4	18.4	< 0.0096	0.8	1.0	4.9	143	7.4	1410	4.07
M54-O	10/27/2020	Primary	68.8	< 2.0	29.5	140	0.63	8.0	10	< 0.0096	0.8	1.0	5.7	105	7.9	699	2.01
M55-UBF	10/28/2020	Primary	177	< 2.0	146	292	10.4	17	17	< 0.0096	0.8	1.0	5.8	180	7.1	1750	3.66
M55-UBF	10/28/2020	Duplicate	178	< 2.0	145	293	10.5	17	17	< 0.0096	0.8	1.0	5.7	180	7.4	1800	3.34
M56-LBF	10/28/2020	Primary	181	< 2.0	108	230	8.8	15.5	15.5	< 0.0096	0.8	1.0	5.6	152	7.4	1470	3.21
M57-O	10/27/2020	Primary	93.6	< 2.0	50.0	137	1.3	8.0	10	< 0.0096	0.8	1.0	4.3	91.3	7.8	873	1.33
M57R-O	10/22/2020	Primary	93.5	< 2.0	134	119	--	--	10.3	--	0.8	1.0	5.7	141	7.8	1460	6.59
M57R-O ⁽²⁾	11/18/2020	Primary	--	--	--	--	0.85	--	10.3	< 0.0096	0.8	1.0	--	--	7.8	1560	--
M58-O	10/21/2020	Primary	133	< 2.0	125	243	7.9	17.4	17.4	< 0.0096	0.8	1.0	6.4	159	7.7	1650	9.09
M59-O	12/01/2020	Primary	115	< 2.0	297	179	3.6	8.0	10	< 0.0096	0.8	1.0	7.8	182	7.8	2300	4.12
M59-O ⁽³⁾	12/29/2020	Primary	--	--	--	--	--	--	--	--	--	--	--	--	7.4	2500	--
M60-O	10/08/2020	Primary	188	< 2.0	147	200	7.7	16.3	16.3	< 0.0096	0.8	1.0	6.4	168	7.4	1510	12.83
M60-O ⁽⁴⁾	11/05/2020	Primary	--	--	--	--	--	16.3	16.3	--	0.8	1.0	--	--	7.8	1490	--
M60-O ⁽⁴⁾	12/10/2020	Primary	--	--	--	--	--	16.3	16.3	--	0.8	1.0	--	--	7.3	1490	--
M61-LBF	10/29/2020	Primary	87.9	< 2.0	35.9	127	0.23	8.0	10	< 0.0096	0.8	1.0	4.0	90.9	7.7	730	-0.34
MW-01-LBF	10/20/2020	Primary	200	< 2.0	113	189	7.7	16.1	16.1	< 0.0096	0.8	1.0	6.2	155	7.3	1430	8.68
MW-01-LBF	10/20/2020	Duplicate	193	< 2.0	115	190	7.7	16.1	16.1	< 0.0096	0.8	1.0	6.3	156	7.4	1470	9.41
MW-01-O	10/21/2020	Primary	98.7	< 2.0	170	229	6.5	13.5	13.5	< 0.0096	0.8	1.0	6.1	145	7.7	1810	9.93
MW-01-O ⁽⁵⁾	11/18/2020	Primary	--	--	--	--	--	13.5	13.5	--	0.8	1.0	--	--	7.8	1480	--
Arizona Aquifer Water Quality Standard ⁽⁶⁾			--	--	--	--	10			1.0			--	--	--	--	

Notes:

(1) Limited resampling of nitrate and nitrite only due to missed laboratory hold time.

(2) Verification sampling plus limited resampling of nitrate and nitrite due to missed laboratory hold time conducted on 11/18/2020.

(3) Verification sampling conducted on 12/29/2020.

(4) Increased frequency monitoring conducted on 11/5/2020 and 12/10/2020.

(5) Verification sampling conducted on 11/18/2020.

(6) Arizona Aquifer Water Quality Standard (AWQS), Drinking Water Standard, December 31, 2016.

Detects are **bolded**.

Non-detects are reported to the laboratory method detection limit (< MDL).

AL = Alert Level

AQL = Aquifer Quality Limit

Temp APP = Temporary Aquifer Protection Permit No. 106360

UIC = Underground Injection Control Permit No. R9UIC-AZ3-FY11-1

TABLE 4

Q4 2020 RADIOCHEMICAL PARAMETERS

FLORENCE COPPER INC.

FLORENCE, ARIZONA

Location ID	Sample ID	Sample Type	Gross Alpha Analytes			Total Uranium Isotopes ⁽¹⁾	Adjusted Gross Alpha Activity ⁽¹⁾				Gross Beta Analytes			Radium-226 + 228				Radon-222			
			pCi/L	TEMP APP AL	UIC AL		pCi/L	TEMP AL	TEMP AQL	UIC AL	pCi/L	UIC AL	UIC AQL	pCi/L	TEMP AL	TEMP AQL	UIC AL	UIC AQL	pCi/L	UIC AL	
M14-GL	11/02/2020	Primary	1.3 ± 0.3	--	15	--	--	12	15	12	15	5.3 ± 1.4	--	--	0.4 ± 0.2	4.0	5.0	4.0	5.0	1342 ± 135.2	--
M15-GU	10/29/2020	Primary	3.4 ± 0.4	--	15	--	--	12	15	12	15	10.2 ± 1.7	--	--	0.8 U	4.0	5.0	4.0	5.0	601 ± 61.2	--
M22-O	10/22/2020	Primary	1.7 ± 0.3	--	15	--	--	12	15	12	15	6.7 ± 1.4	--	--	0.8 U	4.0	5.0	4.0	5.0	1586.7 ± 159.6	--
M23-UBF	10/28/2020	Primary	6.6 ± 0.6	--	15	--	--	12	15	12	15	2.9 U	--	--	0.8 U	4.0	5.0	4.0	5.0	190.2 ± 20.6	--
M52-UBF	10/14/2020	Primary	5.2 ± 0.5	--	--	4.4 ± 0.7	0.8 ± 0.9	--	26.5	12	15	6.8 ± 1.6	18	18	0.8 U	--	17.2	4.0	5.0	108.6 ± 13	265
M54-LBF	10/27/2020	Primary	5.9 ± 0.5	--	--	4.8 ± 0.7	1.1 ± 0.9	--	26.5	12.9	15	6.6 ± 1.6	26	26	0.8 U	--	17.2	4.0	5.0	542.1 ± 55.3	1242
M54-O	10/27/2020	Primary	2.2 ± 0.4	--	--	2.1 ± 0.5	0.1 ± 0.6	--	26.5	12.6	15	7.0 ± 1.5	28	28	0.9 ± 0.4	--	17.2	4.0	4.0	831.8 ± 542.1	8453
M55-UBF	10/28/2020	Primary	4.4 ± 0.5	15	--	--	--	26.5	--	12	15	8.4 ± 1.5	17	17	0.9 ± 0.4	17.2	--	4.0	5.0	192.5 ± 20.8	394
M55-UBF	10/28/2020	Duplicate	5.0 ± 0.5	15	--	--	--	26.5	--	12	15	9.0 ± 1.7	17	17	0.8 U	17.2	--	4.0	5.0	198.2 ± 21.4	394
M56-LBF	10/28/2020	Primary	8.3 ± 0.6	15	--	--	--	26.5	--	13.6	15	7.5 ± 1.9	22	22	0.8 U	17.2	--	4.0	5.0	411.5 ± 42.4	1152
M57-O	10/27/2020	Primary	5.2 ± 0.5	15	--	--	--	26.5	--	12	15	6.4 ± 1.5	16	16	0.8 U	17.2	--	4.0	5.0	7350.7 ± 736	11180
M57-O	10/27/2020	Split	7.21 ± 1.69	15	--	2.58 ± 0.433	--	26.5	--	12	15	10.2 ± 3.16	16	16	1.32 ± 0.384	17.2	--	4.0	5.0	4100 ± 340	11180
M57R-O	10/22/2020	Primary	4.5 ± 0.5	16.9	16.8	--	--	12	--	12	15	7.7 ± 1.6	13.2	13.2	0.8 U	4.7	--	4.8	5	4734.3 ± 474.3	--
M58-O	10/21/2020	Primary	21.9 ± 1.0	15	--	17 ± 1.4	4.9 ± 1.7	26.5	--	15	15	18.8 ± 1.9	47	47	4.6 ± 0.5	17.2	--	13.1	13.1	4878.6 ± 488.6	13070
M59-O	12/01/2020	Primary	91.1 ± 3.4	15	--	17.6 ± 1.4	73.5 ± 3.7	26.5	--	15.8	15.8	43.2 ± 2.7	16	16	19.8 ± 0.8	17.2	--	6.9	6.9	9409.1 ± 941.8	20462
M59-O ⁽²⁾	12/29/2020	Primary	56.7 ± 1.9	15	--	21.3 ± 1.6	35.4 ± 2.5	26.5	--	15.8	15.8	52.7 ± 3.0	16	16	22.0 ± 0.8	17.2	--	6.9	6.9	--	--
M60-O	10/08/2020	Primary	47.8 ± 1.6	15	--	29.1 ± 1.9	18.7 ± 2.5	26.5	--	17.4	17.4	20.4 ± 1.9	33	33	8.0 ± 0.7	17.2	--	13.9	13.9	2971.5 ± 298.2	2480
M60-O	10/08/2020	Split	49.2 ± 6.62	15	--	34.8 ± 2.78	--	26.5	--	17.4	17.4	25.6 ± 5.00	33	33	11.09 ± 1.39	17.2	--	13.9	13.9	--	2480
M60-O ⁽³⁾	11/05/2020	Primary	40.8 ± 1.5	15	--	27.6 ± 1.8	13.2 ± 2.3	26.5	--	17.4	17.4	--	33	33	--	17.2	--	13.9	13.9	3015.8 ± 302.5	2480
M60-O ⁽³⁾	12/10/2020	Primary	52.2 ± 1.8	15	--	31.8 ± 2	20.4 ± 2.7	26.5	--	17.4	17.4	--	33	33	--	17.2	--	13.9	13.9	--	2480
M61-LBF	10/29/2020	Primary	3.0 ± 0.4	15	--	--	--	26.5	--	12	15	4.9 ± 1.4	16	16	0.8 U	17.2	--	4.0	5.0	620.7 ± 63.2	5869
MW-01-LBF	10/20/2020	Primary	9.2 ± 1	15	--	--	--	26.5	--	21.1	21.1	11.6 ± 1.8	21	21	0.8 U	17.2	--	4.0	5.0	320.8 ± 32.1	2094
MW-01-LBF	10/20/2020	Duplicate	4.0 ± 0.5	15	--	--	--	26.5	--	21.1	21.1	7.0 ± 1.6	21	21	0.8 U	17.2	--	4.0	5.0	323 ± 33.6	2094
MW-01-O	10/21/2020	Primary	26.4 ± 1.8	15	--	10.7 ± 1.1	15.7 ± 2.1	26.5	--	21.9	21.9	27.9 ± 2.2	34	34	11.4 ± 0.7	17.2	--	14.4	14.4	6450.5 ± 645.8	15707
Arizona Aquifer Water Quality Standard ⁽⁴⁾	--	(5)	--	--	--	--	--	15	--	--	--	4 mrem/yr	--	--	5	--	--	--	--	--	

Notes:

(1) Total uranium isotopes are analyzed and adjusted gross alpha calculated when gross alpha concentration exceeds 12 pCi/L, and always at M52-UBF, M54-LBF, and M54-O.

(2) Verification sampling conducted on 12/29/2020.

(3) Increased frequency monitoring conducted on 11/5/2020 and 12/10/2020.

(4) Arizona Aquifer Water Quality Standard (AWQS), Drinking Water Standard, December 31, 2016.

(5) The AWQS applies to Adjusted Gross Alpha, which equals Gross Alpha minus Uranium Isotopes.

Alert Level Exceedance

Detects are **bolded**.

Non-detects are reported to the laboratory detection limit (< DL).

AL = Alert Level

AQL = Aquifer Quality Limit

pCi/L = picocuries per liter

Temp APP = Temporary Aquifer Protection Permit No. P-106360

UIC = Underground Injection Control Permit No. R9UIC-AZ3-FY11-1

TABLE 5
Q4 2020 ORGANIC PARAMETERS
FLORENCE COPPER INC.
FLORENCE, ARIZONA

Location	Sample Date	Sample Type	Benzene					Ethylbenzene					Toluene					Total Xylene					Naphthalene			Octane			Total Petroleum Hydrocarbons - Diesel	
			ug/L	TEMP APP AL	TEMP APP AQL	UIC AL	UIC AQL	ug/L	TEMP APP AL	TEMP APP AQL	UIC AL	UIC AQL	ug/L	TEMP APP AL	TEMP APP AQL	UIC AL	UIC AQL	ug/L	TEMP APP AL	TEMP APP AQL	UIC AL	UIC AQL	ug/L	UIC AL	UIC AQL	ug/L	UIC AL	UIC AQL	mg/L	UIC AL
M14-GL	11/02/2020	Primary	<0.0941	4	5	4	5	<0.137	560	700	560	700	<0.278	80	1000	800	1000	<0.174	8000	10000	8000	10000	<1.00	--	--	<0.566	--	--	<0.0222	--
M15-GU	10/29/2020	Primary	<0.0941	4	5	4	5	<0.137	560	700	560	700	<0.278	80	1000	800	1000	<0.174	8000	10000	8000	10000	<1.00	--	--	<0.566	--	--	0.0275 J	--
M22-O	10/22/2020	Primary	<0.0941	4	5	4	5	<0.137	560	700	560	700	<0.278	80	1000	800	1000	<0.174	8000	10000	8000	10000	<1.00	--	--	<0.566	--	--	<0.0222	--
M23-UBF	10/28/2020	Primary	<0.0941	4	5	4	5	<0.137	560	700	560	700	<0.278	80	1000	800	1000	<0.174	8000	10000	8000	10000	<1.00	--	--	<0.566	--	--	0.212	--
M52-UBF	10/14/2020	Primary	<0.0941	4	5	4	5	<0.137	560	700	560	700	<0.278	80	1000	800	1000	<0.174	8000	10000	8000	10000	<1.00	3.5	3.5	<0.566	0.9	0.9	<0.0222	0.28
M54-LBF	10/27/2020	Primary	<0.0941	4	5	4	5	<0.137	560	700	560	700	<0.278	80	1000	800	1000	<0.174	8000	10000	8000	10000	<1.00	3.5	3.5	<0.566	0.9	0.9	<0.0222	0.28
M54-O	10/27/2020	Primary	<0.0941	4	5	4	5	<0.137	560	700	560	700	<0.278	80	1000	800	1000	<0.174	8000	10000	8000	10000	<1.00	3.5	3.5	<0.566	0.9	0.9	0.0292 J	0.28
M55-UBF	10/28/2020	Primary	<0.0941	4	--	4	5	<0.137	560	--	560	700	<0.278	800	--	800	1000	<0.174	8000	--	8000	10000	<1.00	3.5	3.5	<0.566	0.9	0.9	0.0311 J	0.28
M55-UBF	10/28/2020	Duplicate	<0.0941	4	--	4	5	<0.137	560	--	560	700	<0.278	800	--	800	1000	<0.174	8000	--	8000	10000	<1.00	3.5	3.5	<0.566	0.9	0.9	<0.0233	0.28
M56-LBF	10/28/2020	Primary	<0.0941	4	--	4	5	<0.137	560	--	560	700	<0.278	800	--	800	1000	<0.174	8000	--	8000	10000	<1.00	3.5	3.5	<0.566	0.9	0.9	0.107	0.28
M57-O	10/27/2020	Primary	<0.0941	4	--	4	5	<0.137	560	--	560	700	<0.278	800	--	800	1000	<0.174	8000	--	8000	10000	<1.00	3.5	3.5	<0.566	0.9	0.9	0.0352 J	0.28
M57R-O	10/22/2020	Primary	<0.0941	4	--	4	5	<0.137	560	--	560	700	<0.278	800	--	800	1000	<0.174	8000	--	8000	10000	<1.00	--	--	<0.566	--	--	0.0680 J	--
M58-O	10/21/2020	Primary	<0.0941	4	--	4	5	<0.137	560	--	560	700	<0.278	800	--	800	1000	<0.174	8000	--	8000	10000	<1.00	--	--	<0.566	--	--	<0.0222	0.28
M59-O	11/01/2020	Primary	<0.0941	4	--	4	5	<0.137	560	--	560	700	0.7971 J	800	--	800	1000	<0.174	8000	--	8000	10000	<1.00	3.5	3.5	<0.566	0.9	0.9	0.177	0.28
M60-O	10/08/2020	Primary	<0.0941	4	--	4	5	<0.137	560	--	560	700	<0.278	800	--	800	1000	<0.174	8000	--	8000	10000	<1.00	3.5	3.5	<0.566	0.9	0.9	<0.0222	0.28
M61-LBF	10/29/2020	Primary	<0.0941	4	--	4	5	<0.137	560	--	560	700	<0.278	800	--	800	1000	<0.174	8000	--	8000	10000	<1.00	3.5	3.5	<0.566	0.9	0.9	<0.0222	0.28
MW-01-LBF	10/20/2020	Primary	<0.0941	4	--	4	5	<0.137	560	--	560	700	<0.278	800	--	800	1000	<0.174	8000	--	8000	10000	<1.00	3.5	3.5	<0.566	0.9	0.9	0.0261 J	0.28
MW-01-LBF	10/20/2020	Duplicate	<0.0941	4	--	4	5	<0.137	560	--	560	700	<0.278	800	--	800	1000	<0.174	8000	--	8000	10000	<1.00	3.5	3.5	<0.566	0.9	0.9	<0.0222	0.28
MW-01-O	10/21/2020	Primary	<0.0941	4	--	4	5	<0.137	560	--	560	700	<0.278	800	--	800	1000	<0.174	8000	--	8000	10000	<1.00	3.5	3.5	<0.566	0.9	0.9	0.0287 J	0.28
Arizona Aquifer Water Quality Standard ⁽¹⁾			5	700					1000					10000					10000					--			--			

Notes:

(1) Arizona Aquifer Water Quality Standard (AWQS), Drinking Water Standard, December 31, 2016.

Detects are **bolded**.

Non-detects are reported to the laboratory method detection limit (< MDL).

AL = Alert Level

AQL = Aquifer Quality Limit

J = estimated value

mg/L = milligrams per liter

Temp APP = Temporary Aquifer Protection Permit No. 106360

UIC = Underground Injection Permit Permit No. R9UIC-AZ3-FY11-1

µg/L = micrograms per liter

TABLE 6
Q4 2020 TRACE METALS
FLORENCE COPPER INC.
FLORENCE, ARIZONA

Location	Sample Date	Sample Type	Dissolved Aluminum			Dissolved Antimony				Dissolved Arsenic				Dissolved Barium				Dissolved Beryllium							
			mg/L	TEMP AL	UIC AL	mg/L	TEMP AL	TEMP AQL	UIC AL	UIC AQL	mg/L	TEMP AL	TEMP AQL	UIC AL	UIC AQL	mg/L	TEMP AL	TEMP AQL	UIC AL	UIC AQL	mg/L	TEMP AL	TEMP AQL	UIC AL	UIC AQL
M14-GL	11/02/2020	Primary	0.010 J	0.71	0.71	< 0.000077	0.0048	0.006	0.0048	0.006	0.00065	0.026	0.05	0.026	0.05	0.017	1.6	2.0	1.6	2.0	< 0.000054	0.0032	0.004	0.0032	0.004
M15-GU	10/29/2020	Primary	< 0.0071	0.71	0.71	< 0.000077	0.0048	0.006	0.0048	0.006	0.0016	0.026	0.05	0.026	0.05	0.0040	1.6	2.0	1.6	2.0	< 0.000054	0.0032	0.0043	0.0032	0.004
M22-O	10/22/2020	Primary	0.015 J	0.71	0.71	< 0.000077	--	0.0076	0.0048	0.006	0.00022 J	0.026	0.05	0.026	0.05	0.0027	1.6	2.0	1.6	2.0	< 0.000054	0.032	0.004	0.0032	0.004
M23-UBF	10/28/2020	Primary	0.011 J	0.71	0.71	< 0.000077	0.0048	0.006	0.0048	0.006	0.0022	0.026	0.05	0.026	0.05	0.074	1.6	2.0	1.6	2.0	< 0.000054	0.0032	0.004	0.0032	0.004
M52-UBF	10/14/2020	Primary	0.0096 J	0.16	0.16	< 0.000077	0.0048	0.006	0.0048	0.006	0.0024	0.26	0.05	0.026	0.05	0.046	1.6	2.0	1.6	2.0	< 0.000054	0.0032	0.004	0.0032	0.004
M54-LBF	10/27/2020	Primary	< 0.0071	0.16	0.16	< 0.000077	0.0048	0.006	0.0048	0.006	0.0017	0.026	0.05	0.026	0.05	0.048	1.6	2.0	1.6	2.0	< 0.000054	0.0032	0.004	0.0032	0.004
M54-O	10/27/2020	Primary	< 0.0071	0.16	0.16	< 0.000077	0.0048	0.006	0.0048	0.006	0.00099	0.026	0.05	0.026	0.05	0.0070	1.6	2.0	1.6	2.0	< 0.000054	0.0032	0.004	0.0032	0.004
M55-UBF	10/28/2020	Primary	0.011 J	0.16	0.16	< 0.000077	0.0048	--	0.0048	0.006	0.0018	0.026	--	0.026	0.05	0.073	1.6	--	1.6	2.0	< 0.000054	0.0032	--	0.0032	0.004
M55-UBF	10/28/2020	Duplicate	< 0.0071	0.16	0.16	< 0.000077	0.0048	--	0.0048	0.006	0.0018	0.026	--	0.026	0.05	0.072	1.6	--	1.6	2.0	< 0.000054	0.0032	--	0.0032	0.004
M56-LBF	10/28/2020	Primary	< 0.0071	0.16	0.16	< 0.000077	0.0048	--	0.0048	0.006	0.0011	0.026	--	0.026	0.05	0.074	1.6	--	1.6	2.0	< 0.000054	0.0032	--	0.0032	0.004
M57-O	10/27/2020	Primary	0.022	0.16	0.16	< 0.000077	0.0048	--	0.0048	0.006	0.0010	0.026	--	0.026	0.05	0.0092	1.6	--	1.6	2.0	< 0.000054	0.0032	--	0.0032	0.004
M57R-O	10/22/2020	Primary	0.0077 J	0.16	0.16	< 0.000077	0.0048	--	0.0048	0.006	0.0015	0.026	--	0.026	0.05	0.023	1.6	--	1.6	2.0	< 0.000054	0.0032	--	0.0032	0.004
M58-O	10/21/2020	Primary	< 0.0071	0.16	0.16	< 0.000077	0.0048	--	0.0048	0.006	0.0021	0.026	--	0.026	0.05	0.072	1.6	--	1.6	2.0	< 0.000054	0.0032	--	0.0032	0.004
M59-O	12/01/2020	Primary	< 0.0071	0.16	0.16	< 0.000077	0.0048	--	0.0048	0.006	0.0012	0.026	--	0.026	0.05	0.16	1.6	--	1.6	2.0	< 0.000054	0.0032	--	0.0032	0.004
M59-O ⁽¹⁾	12/29/2020	Primary	--	0.16	0.16	--	0.0048	--	0.0048	0.006	--	0.026	--	0.026	0.05	--	1.6	--	1.6	2.0	--	0.0032	--	0.0032	0.004
M60-O	10/08/2020	Primary	0.0086 J	0.16	0.16	< 0.000077	0.0048	--	0.0048	0.006	0.00041 J	0.026	--	0.026	0.05	0.054	1.6	--	1.6	2.0	< 0.000054	0.0032	--	0.0032	0.004
M61-LBF	10/29/2020	Primary	< 0.0071	0.16	0.16	< 0.000077	0.0048	--	0.0048	0.006	0.0016	0.026	--	0.026	0.05	0.084	1.6	--	1.6	2.0	< 0.000054	0.0032	--	0.0032	0.004
MW-01-LBF	10/20/2020	Primary	0.012 J	0.16	0.16	0.000085 J	0.0048	--	0.0048	0.006	0.0014	0.026	--	0.026	0.05	0.044	1.6	--	1.6	2.0	< 0.000054	0.0032	--	0.0032	0.004
MW-01-LBF	10/20/2020	Duplicate	< 0.0071	0.16	0.16	< 0.000077	0.0048	--	0.0048	0.006	0.0014	0.026	--	0.026	0.05	0.045	1.6	--	1.6	2.0	< 0.000054	0.0032	--	0.0032	0.004
MW-01-O	10/21/2020	Primary	0.010 J	0.16	0.16	< 0.000077	0.0048	--	0.0048	0.006	0.0015	0.026	--	0.026	0.05	0.057	1.6	--	1.6	2.0	< 0.000054	0.0032	--	0.0032	0.004

Arizona Aquifer Water Quality Standard ⁽²⁾

-- 0.006 0.05 2.0 0.004

Notes:

(1) Verification sampling conducted 12/29/2020.

(2) Arizona Aquifer Water Quality Standard (AWQS), Drinking Water Standard, Dec 31, 2016.

(3) Total (i.e., non-speciated) dissolved chromium

Alert Level Exceedance

Detects are **bolded**.

Non-detects are reported to the laboratory method detection limit (< MDL).

AL = Alert level

AQL = Aquifer Quality Limit

J = estimated value

mg/L = milligrams per liter

Temp APP = Temporary Aquifer Protection Permit No. P-106360

UIC = Underground Injection Control Permit No. R9UIC-AZ3-FY11-1

TABLE 6
Q4 2020 TRACE METALS
FLORENCE COPPER INC.
FLORENCE, ARIZONA

Location	Sample Date	Sample Type	Dissolved Cadmium					Dissolved Chromium ⁽³⁾					Dissolved Cobalt			Dissolved Copper			Dissolved Iron			
			mg/L	TEMP AL	TEMP AQL	UIC AL	UIC AQL	mg/L	TEMP AL	TEMP AQL	UIC AL	UIC AQL	mg/L	TEMP AL	UIC AL	mg/L	TEMP AL	UIC AL	UIC AQL	mg/L	TEMP AL	UIC AL
M14-GL	11/02/2020	Primary	< 0.000030	0.004	0.005	0.004	0.005	0.0038	0.08	0.1	0.08	0.1	< 0.000085	0.005	0.005	0.0016	0.51	0.51	--	< 0.012	2.2	2.2
M15-GU	10/29/2020	Primary	< 0.000030	--	0.02	--	0.02	0.0047	0.08	0.1	0.08	0.1	< 0.000085	0.005	0.005	0.0010	0.51	0.51	--	0.022 J	2.2	2.2
M22-O	10/22/2020	Primary	< 0.000030	--	0.02	--	0.02	0.0021	0.08	0.1	0.08	0.1	< 0.000085	0.005	0.005	0.00088 J	0.51	0.51	--	0.12	2.2	2.2
M23-UBF	10/28/2020	Primary	< 0.000030	0.004	0.005	0.004	0.005	0.0012	0.08	0.1	0.08	0.1	< 0.000085	0.005	0.005	0.00061 J	0.51	0.51	--	0.027 J	2.2	2.2
M52-UBF	10/14/2020	Primary	< 0.000030	0.004	0.005	0.004	0.005	0.00098	0.08	0.1	0.08	0.1	< 0.000085	0.002	0.002	0.0011	0.8	0.8	1.0	< 0.012	1.4	0.24
M54-LBF	10/27/2020	Primary	< 0.000030	0.004	0.005	0.004	0.005	0.0013	0.08	0.1	0.08	0.1	< 0.000085	0.002	0.002	0.00070 J	0.8	0.8	1.0	< 0.012	1.4	0.24
M54-O	10/27/2020	Primary	< 0.000030	0.004	0.005	0.004	0.005	0.0013	0.08	0.1	0.08	0.1	0.000096 J	0.002	0.002	0.00056 J	0.8	0.8	1.0	< 0.012	1.4	0.89
M55-UBF	10/28/2020	Primary	< 0.000030	0.004	--	0.004	0.005	0.0021	0.08	--	0.08	0.1	< 0.000085	0.002	0.002	0.00074 J	0.8	0.8	1.0	< 0.012	1.4	0.24
M55-UBF	10/28/2020	Duplicate	< 0.000030	0.004	--	0.004	0.005	0.0017	0.08	--	0.08	0.1	< 0.000085	0.002	0.002	0.00060 J	0.8	0.8	1.0	< 0.012	1.4	0.24
M56-LBF	10/28/2020	Primary	< 0.000030	0.004	--	0.004	0.005	0.00087	0.08	--	0.08	0.1	< 0.000085	0.002	0.002	0.00068 J	0.8	0.8	1.0	0.021 J	1.4	0.24
M57-O	10/27/2020	Primary	0.000069 J	0.004	--	0.004	0.005	0.0030	0.08	--	0.08	0.1	< 0.000085	0.002	0.002	0.0026	0.8	0.8	1.0	< 0.012	1.4	0.24
M57R-O	10/22/2020	Primary	0.000045 J	0.004	--	0.004	0.005	0.0084	0.08	--	0.08	0.1	0.00012 J	0.0009	0.0009	0.0015	0.8	0.8	--	0.077	0.24	0.24
M58-O	10/21/2020	Primary	< 0.000030	0.004	--	0.004	0.005	0.0028	0.08	--	0.08	0.1	< 0.000085	0.002	0.002	0.0021	0.8	0.8	1.0	< 0.012	1.4	0.24
M59-O	12/01/2020	Primary	0.000058 J	0.004	--	0.004	0.005	0.0026	0.08	--	0.08	0.1	< 0.000085	0.002	0.002	0.0084	0.8	0.8	1.0	0.052	1.4	0.24
M59-O ⁽¹⁾	12/29/2020	Primary	--	0.004	--	0.004	0.005	--	0.08	--	0.08	0.1	--	0.002	0.002	--	0.8	0.8	1.0	--	1.4	0.24
M60-O	10/08/2020	Primary	0.000032 J	0.004	--	0.004	0.005	0.0038	0.08	--	0.08	0.1	0.00027 J	0.002	0.002	0.0074	0.8	0.8	1.0	0.018 J	1.4	0.24
M61-LBF	10/29/2020	Primary	< 0.000030	0.004	--	0.004	0.005	0.0024	0.08	--	0.08	0.1	0.000089 J	0.002	0.002	< 0.00043	0.8	0.8	1.0	0.015 J	1.4	1.13
MW-01-LBF	10/20/2020	Primary	< 0.000030	0.004	--	0.004	0.005	0.0036	0.08	--	0.08	0.1	0.00010 J	0.002	0.002	< 0.00043	0.8	0.8	1.0	0.11	1.4	0.24
MW-01-LBF	10/20/2020	Duplicate	< 0.000030	0.004	--	0.004	0.005	0.0044	0.08	--	0.08	0.1	0.00011 J	0.002	0.002	0.00061 J	0.8	0.8	1.0	0.14	1.4	0.24
MW-01-O	10/21/2020	Primary	0.00014	0.004	--	0.004	0.005	0.0043	0.08	--	0.08	0.1	0.000089 J	0.002	0.002	0.0036	0.8	0.8	1.0	0.034 J	1.4	0.24
Arizona Aquifer Water Quality Standard ⁽²⁾			0.005					0.1					--			--			--			

Notes:

- (1) Verification sampling conducted 12/29/2020.
- (2) Arizona Aquifer Water Quality Standard (AWQS), Drinking Water Standard, Dec 31, 2016.
- (3) Total (i.e., non-specified) dissolved chromium

Alert Level Exceedance

Detects are **bolded**.

Non-detects are reported to the laboratory method detection limit (< MDL).

AL = Alert level

AQL = Aquifer Quality Limit

J = estimated value

mg/L = milligrams per liter

Temp APP = Temporary Aquifer Protection Permit No. P-106360

UIC = Underground Injection Control Permit No. R9UIC-AZ3-FY11-1

TABLE 6
Q4 2020 TRACE METALS
FLORENCE COPPER INC.
FLORENCE, ARIZONA

Location	Sample Date	Sample Type	Dissolved Lead					Dissolved Manganese			Dissolved Mercury					Dissolved Nickel					Dissolved Selenium				
			mg/L	TEMP AL	TEMP AQL	UIC AL	UIC AQL	mg/L	TEMP AL	UIC AL	mg/L	TEMP AL	TEMP AQL	UIC AL	UIC AQL	mg/L	TEMP AL	TEMP AQL	UIC AL	UIC AQL	mg/L	TEMP AL	TEMP AQL	UIC AL	UIC AQL
M14-GL	11/02/2020	Primary	< 0.000043	0.04	0.05	0.04	0.05	0.0022	0.22	0.22	< 0.000045	0.0016	0.002	0.0011	0.002	< 0.00018	0.08	0.1	0.08	0.1	0.00061	0.04	0.05	0.027	0.05
M15-GU	10/29/2020	Primary	< 0.000043	0.04	0.05	0.04	0.05	0.00038 J	0.22	0.22	< 0.000045	0.0016	0.002	0.0011	0.002	0.0027	0.08	0.1	0.08	0.13	0.00061	0.04	0.05	0.027	0.05
M22-O	10/22/2020	Primary	0.000051 J	0.04	0.05	0.04	0.05	0.014	0.22	0.22	< 0.000045	0.0016	0.002	0.0011	0.002	0.00030 J	0.08	0.1	0.08	0.1	0.0015	0.04	0.05	0.027	0.05
M23-UBF	10/28/2020	Primary	< 0.000043	0.04	0.05	0.04	0.05	0.00043 J	0.22	0.22	0.000050 J	0.0016	0.002	0.0011	0.002	< 0.00018	0.08	0.1	0.08	0.1	0.00081	0.04	0.05	0.027	0.05
M52-UBF	10/14/2020	Primary	0.00022	0.04	0.05	0.04	0.05	< 0.00022	0.52	0.04	< 0.000045	0.0016	0.002	0.0016	0.002	0.00055	0.08	0.1	0.08	0.1	0.0011	0.04	0.05	0.04	0.05
M54-LBF	10/27/2020	Primary	< 0.000043	0.04	0.05	0.04	0.05	< 0.00022	0.52	0.04	< 0.000045	0.0016	0.002	0.0016	0.002	0.00033 J	0.08	0.1	0.08	0.1	0.00068	0.04	0.05	0.04	0.05
M54-O	10/27/2020	Primary	0.000051 J	0.04	0.05	0.04	0.05	0.00094	0.52	0.3	< 0.000045	0.0016	0.002	0.0016	0.002	0.0039	0.08	0.1	0.08	0.1	0.00043 J	0.04	0.05	0.04	0.05
M55-UBF	10/28/2020	Primary	< 0.000043	0.04	--	0.04	0.05	0.00080	0.52	0.29	< 0.000045	0.0016	--	0.0016	0.002	0.00034 J	0.08	--	0.08	--	0.00097	0.04	--	0.04	0.05
M55-UBF	10/28/2020	Duplicate	< 0.000043	0.04	--	0.04	0.05	0.00075	0.52	0.29	< 0.000045	0.0016	--	0.0016	0.002	0.00020 J	0.08	--	0.08	--	0.00099	0.04	--	0.04	0.05
M56-LBF	10/28/2020	Primary	< 0.000043	0.04	--	0.04	0.05	0.0025	0.52	0.42	< 0.000045	0.0016	--	0.0016	0.002	0.00086	0.08	--	0.08	--	0.00069	0.04	--	0.04	0.05
M57-O	10/27/2020	Primary	< 0.000043	0.04	--	0.04	0.05	0.0011	0.52	0.04	< 0.000045	0.0016	--	0.0016	0.002	0.00023 J	0.08	--	0.08	--	0.0012	0.04	--	0.04	0.05
M57R-O	10/22/2020	Primary	0.00027	0.04	--	0.04	0.05	0.0012	0.082	0.04	0.000090 J	0.0016	--	0.0016	0.002	0.0056	0.08	--	0.08	0.1	0.015	0.04	--	0.04	0.05
M58-O	10/21/2020	Primary	< 0.000043	0.04	--	0.04	0.05	0.00069	0.52	0.04	< 0.000045	0.0016	--	0.0016	0.002	0.0041	0.08	--	0.08	--	0.0010	0.04	--	0.04	0.05
M59-O	12/01/2020	Primary	< 0.000043	0.04	--	0.04	0.05	0.0016	0.52	0.05	0.00013 J	0.0016	--	0.0016	0.002	< 0.00018	0.08	--	0.08	--	0.038	0.04	--	0.04	0.05
M59-O ⁽¹⁾	12/29/2020	Primary	--	0.04	--	0.04	0.05	--	0.52	0.05	--	0.0016	--	0.0016	0.002	--	0.08	--	0.08	--	--	0.04	--	0.04	0.05
M60-O	10/08/2020	Primary	< 0.000043	0.04	--	0.04	0.05	0.0011	0.52	0.07	< 0.000045	0.0016	--	0.0016	0.002	0.0094	0.2	--	0.2	--	0.0033	0.04	--	0.04	0.05
M61-LBF	10/29/2020	Primary	0.000048 J	0.04	--	0.04	0.05	0.00069	0.52	0.18	< 0.000045	0.0016	--	0.0016	0.002	0.0052	0.08	--	0.08	--	0.00087	0.04	--	0.04	0.05
MW-01-LBF	10/20/2020	Primary	< 0.000043	0.04	--	0.04	0.05	0.00076	0.52	0.23	< 0.000045	0.0016	--	0.0016	0.002	0.0069	0.08	--	0.08	--	0.00069	0.04	--	0.04	0.05
MW-01-LBF	10/20/2020	Duplicate	< 0.000043	0.04	--	0.04	0.05	0.00087	0.52	0.23	< 0.000045	0.0016	--	0.0016	0.002	0.0074	0.08	--	0.08	--	0.00070	0.04	--	0.04	0.05
MW-01-O	10/21/2020	Primary	< 0.000043	0.04	--	0.04	0.05	0.00053	0.52	0.06	< 0.000045	0.0016	--	0.0016	0.002	0.0029	0.08	--	0.08	--	0.0081	0.04	--	0.04	0.05

Arizona Aquifer Water Quality Standard ⁽²⁾

Notes:

- (1) Verification sampling conducted 12/29/2020.
- (2) Arizona Aquifer Water Quality Standard (AWQS), Drinking Water Standard, Dec 31, 2016.
- (3) Total (i.e., non-speciated) dissolved chromium

Alert Level Exceedance

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mg/L = milligrams per liter

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UIC = Underground Injection Control Permit No. R9UIC-AZ3-FY11-1

TABLE 6
Q4 2020 TRACE METALS
FLORENCE COPPER INC.
FLORENCE, ARIZONA

Location	Sample Date	Sample Type	Dissolved Thallium					Total Uranium			Dissolved Zinc		
			mg/L	TEMP AL	TEMP AQL	UIC AL	UIC AQL	mg/L	TEMP AL	UIC AL	mg/L	TEMP AL	UIC AL
M14-GL	11/02/2020	Primary	< 0.000047	0.0016	0.002	0.0016	0.002	0.00066	--	--	< 0.0023	2.5	2.5
M15-GU	10/29/2020	Primary	< 0.000047	0.0016	0.002	0.0016	0.002	0.0029	--	--	0.0023 J	2.5	2.5
M22-O	10/22/2020	Primary	< 0.000047	--	0.01	--	0.01	0.0030	--	--	< 0.0023	2.5	2.5
M23-UBF	10/28/2020	Primary	< 0.000047	--	0.012	--	0.012	0.0056	--	--	< 0.0023	2.5	2.5
M52-UBF	10/14/2020	Primary	< 0.000047	0.0016	0.002	0.0016	0.002	0.0043	--	0.0081	0.0048 J	4.0	4.0
M54-LBF	10/27/2020	Primary	< 0.000047	0.0016	0.002	0.0016	0.002	0.0041	--	0.0118	< 0.0023	4.0	4.0
M54-O	10/27/2020	Primary	< 0.000047	0.0016	0.002	0.0016	0.002	0.0035	--	0.0193	0.0025 J	4.0	4.0
M55-UBF	10/28/2020	Primary	< 0.000047	0.0016	--	0.0016	0.002	0.0039	--	0.0098	0.0023 J	4.0	4.0
M55-UBF	10/28/2020	Duplicate	< 0.000047	0.0016	--	0.0016	0.002	0.0039	--	0.0098	< 0.0023	4.0	4.0
M56-LBF	10/28/2020	Primary	< 0.000047	0.0016	--	0.0016	0.002	0.0063	--	0.0148	< 0.0023	4.0	4.0
M57-O	10/27/2020	Primary	< 0.000047	0.0016	--	0.0016	0.002	0.0037	--	0.0135	< 0.0023	4.0	4.0
M57R-O	10/22/2020	Primary	< 0.000047	0.0016	--	0.0016	0.002	0.0025	--	--	< 0.0023	4.0	4.0
M58-O	10/21/2020	Primary	< 0.000047	0.0016	--	0.0016	0.002	0.026	--	0.1341	0.0034 J	4.0	4.0
M59-O	12/01/2020	Primary	< 0.000047	0.0016	--	0.0016	0.002	0.037	0.16	0.0052	0.0039 J	4.0	4.0
M59-O ⁽¹⁾	12/29/2020	Primary	--	0.0016	--	0.0016	0.002	0.038	0.16	0.0052	--	4.0	4.0
M60-O	10/08/2020	Primary	< 0.000047	0.0016	--	0.0016	0.002	0.043	0.16	0.0612	0.0028 J	4.0	4.0
M61-LBF	10/29/2020	Primary	< 0.000047	0.0016	--	0.0016	0.002	0.00088	0.16	0.0041	< 0.0023	4.0	4.0
MW-01-LBF	10/20/2020	Primary	< 0.000047	0.0016	--	0.0016	0.002	0.0094	0.16	0.0154	0.0083	5.6	4.6
MW-01-LBF	10/20/2020	Duplicate	< 0.000047	0.0016	--	0.0016	0.002	0.0092	0.16	0.0154	0.0087	5.6	4.6
MW-01-O	10/21/2020	Primary	< 0.000047	0.0016	--	0.0016	0.002	0.015	0.16	0.033	0.0028 J	4.0	4.0
Arizona Aquifer Water Quality Standard ⁽²⁾			0.002					--			--		

Notes:

(1) Verification sampling conducted 12/29/2020.

(2) Arizona Aquifer Water Quality Standard (AWQS), Drinking Water Standard, Dec 31, 2016.

(3) Total (i.e., non-specified) dissolved chromium

Alert Level Exceedance

Detects are **bolded**.

Non-detects are reported to the laboratory method detection limit (< MDL).

AL = Alert level

AQL = Aquifer Quality Limit

J = estimated value

mg/L = milligrams per liter

Temp APP = Temporary Aquifer Protection Permit No. P-106360

UIC = Underground Injection Control Permit No. R9UIC-AZ3-FY11-1

APPENDIX A

Data Quality Assurance/Quality Control Summary Memorandum



HALEY & ALDRICH, INC.
One Arizona Center
400 E. Van Buren St., Suite 545
Phoenix, AZ 85004
602.760.2450

MEMORANDUM

15 January 2020
File No. 133887-007

TO: Haley & Aldrich, Inc.
Sarah Cooper, P.E.

FROM: Haley & Aldrich, Inc.
Alexis Rainery, Engineer
Katherine Miller, Project Manager

SUBJECT: Appendix A – Data Quality Assurance/Quality Control Summary

Analytical results for environmental samples collected during the fourth quarter 2020 compliance monitoring event were verified in accordance with guidance provided by the U.S. Environmental Protection Agency [USEPA], 2012]¹. For each laboratory data package, the following quality control/quality assurance criteria from the analysis of the project samples were reviewed:

- Completeness with the chain of custody (COC);
- Comparison of reporting limits to alert levels (AL) and aquifer quality limits (AQL);
- Holding times/preservation;
- Blank sample analysis;
- Laboratory control samples;
- Matrix spike samples;
- Laboratory and field duplicate sample analysis; and
- Verification of laboratory report data.

Sample data were qualified by the laboratory in accordance with laboratory standard operating procedures (SOP). Based on a check of the data qualifiers assigned to the project sample results, these flags were applied to the reported results in accordance with the laboratory-specific SOP.

¹ USEPA, 2012. USEPA Region 9 Guidance for Quality Assurance Program Plans, R9QA/03.2. March.

COMPLETENESS WITH CHAIN OF CUSTODY

Samples were collected, preserved, and shipped following standard COC protocol. Samples were also received appropriately, identified correctly, and analyzed according to the COC. COCs were appropriately signed and dated by the field and/or laboratory personnel. The following exceptions were noted:

- Custody seal not used on coolers for the following laboratory reports: 10539799 and 10539801. The following samples are included in the identified laboratory reports: MW-01-O-111820 and M57R-O-111820.
- For laboratory reports 10535704 and 10537868, analysis of nitrate and nitrite by USEPA 300.0 was cancelled due to missed hold time for the following samples: M14-GL-110220, M52-UBF-101420, M52-UBF-101420. Wells were resampled and reanalyzed.

REPORTING LIMITS

The reporting limits and/or method detection limits were at or below the applicable ALs and AQLs.

HOLDING TIMES/PRESERVATION

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified as per each method's protocol with the following exceptions:

- All samples analyzed for pH by method SM 4500-H+B were analyzed outside the hold time by the laboratory per client request.

Laboratory Report	Method	Matrix	Holding Time	Preservation	Sample ID, Violation, Qualification
10537868	USEPA 300.0	Water	48 hours	Unpreserved	Nitrate and nitrite by method USEPA 300.0 was analyzed outside the 48-hour hold time for the following sample: M14-GL-110220 Well was resampled and reanalyzed.
10535704	USEPA 300.0	Water	48 hours	Unpreserved	Nitrate and nitrite by method USEPA 300.0 was analyzed outside the 48-hour hold time for the following sample: M52-UBF-101420 Well was resampled and reanalyzed.
Notes: USEPA = U.S. Environmental Protection Agency					

BLANK SAMPLE ANALYSIS

Method blank samples had no detections, indicating that no contamination from laboratory activities occurred with the following exceptions:

Laboratory Report	Sample ID	Batch ID	Analyte Detected in Method Blank	Concentration (mg/L)
10534937	M60-O-100820	703485	Aluminum, Dissolved	0.018 J
10536289	MW-01-LBF ML-67 (Duplicate of MW-01-LBF)	706943	Chromium, Dissolved	0.00022 J
			Zinc, Dissolved	0.0040 J
10536466	MW-01-O M58-O TB 266817	707486	Chromium, Dissolved	0.00048 J
			Iron, Dissolved	0.023 J
			Lead, Dissolved	0.000091 J
			Manganese, Dissolved	0.00032 J
10536688	M22-O M57R-O TB 266817	707486	Chromium, Dissolved	0.00048 J
			Iron, Dissolved	0.023 J
			Lead, Dissolved	0.000091 J
			Manganese, Dissolved	0.00032 J
10537073	M54-O M54-LBF M57-O TB 276483	707486	Chromium, Dissolved	0.00048 J
			Iron, Dissolved	0.023 J
			Lead, Dissolved	0.000091 J
			Manganese, Dissolved	0.00032 J
10537281	TB #252491 M56-LBF M55-UBF G77-O (Duplicate of M55-UBF) M23-UBF	710869	Aluminum, Dissolved	0.0092 J
10537476	M61-LBF M15-GU TB #276483	710869	Aluminum, Dissolved	0.0092 J
10537868	M14-GL-110220 Trip Blank	711419	Iron, Dissolved	0.013 J
		708986	Fluoride	0.026 J
10539801	M57R-O-111820	712164	Fluoride	0.028 J
10541924	M60-O	715978	Fluoride	0.010 J
Notes:				
<i>µmhos/cm = micromhos per centimeter</i>				
<i>J = estimated</i>				
<i>mg/L = milligrams per liter</i>				

LABORATORY CONTROL AND MATRIX SPIKE SAMPLES

Compounds associated with the laboratory control sample and laboratory control sample duplicate and matrix spike and matrix spike duplicate analyses exhibited recoveries and relative percent differences (RPD) within the specified limits with the following exceptions:

Laboratory Report	Sample ID	Sample Type	Method	Batch ID	Analyte	%R, RPD	Acceptable %R, RPD
10535704	M52-UBF-101420	LCS/LCSD	USEPA 8260B	R3586002	Naphthalene	51.6%/53.6%	54-135%
10536466	MW-01-O	MS/MSD	USEPA 200.8	707486	Calcium, Dissolved	41%/194%	70-130%
		MS/MSD			Magnesium, Dissolved	-37%/-63%	70-130%
		MS/MSD			Sodium, Dissolved	-48%/-140%	70-130%
10537476	M61-LBF	MS/MSD	USEPA 200.8	710869	Sodium, Dissolved	159%/13%	70-130%
10539799	MW-01-O	MS	USEPA 300.0	712646	Fluoride	78%	80-120%
10540833	M59-O-GW-120120	MS/MSD	USEPA 200.8	715130	Calcium, Dissolved	511%/364%	70-130%
		MS		715130	Magnesium, Dissolved	135%	70-130%
		MS/MSD		715130	Sodium, Dissolved	233%/52%	70-130%
10543599	M59-O-GW-122920	MS/MSD	USEPA 200.8	718450	Magnesium, Dissolved	-73%/-2%	70-130%
Notes:							
% = percent							
%R = percent recovery							
MS = matrix spike							
MSD = matrix spike duplicate							
RPD = relative percent difference							
USEPA = U.S. Environmental Protection Agency							

LABORATORY AND FIELD DUPLICATE SAMPLES

The RPDs for laboratory duplicate analysis were all below 20 percent for water (or the absolute difference rule was satisfied if detects were less than 5 times the reporting limit).

The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. The following samples were collected for field duplicate analysis and the RPDs were all below 35 percent for water (or the absolute difference rule was satisfied if detects were less than 5 times the reporting limit).

Primary Sample ID	Duplicate Sample ID	Methods for Which Field Duplicates Were Analyzed
MW-01-LBF	ML-67	pH by SM 4500H+ Electroconductivity by SM 2540B Anions by USEPA 300.0 Total Dissolved Solids by SM 2540C Metals by EPA 200.7 and USEPA 200.8 Mercury by USEPA 245.1 Alkalinity by SM 2320B Gross Alpha by USEPA 600/02-02 Gross Beta USEPA 900 Radium 226 + 228 by USEPA 903/Gamma Ray HPGE Uranium Isotopes by ASTM 6239 Radon by SM7500-RN Extractable Fuel Hydrocarbons by USEPA 8015D Volatile Organic Compounds by USEPA 8260B
M55-UBF	G77-O	
Notes: ASTM = ASTM International SM = Standard Method USEPA = U.S. Environmental Protection Agency		

For radiological analyses, the overall variability attributable to the sampling procedure, sample matrix, and laboratory procedures was evaluated by assessing the normalized absolute difference data between the field duplicate and primary samples. All calculated differences were within matrix-specific data quality objectives.

VERIFICATION OF LABORATORY REPORT DATA

A minimum of 10 percent of the data reported by the laboratory were verified against the electronic data deliverables.

ATTACHMENT 11

Well Bore Annular Electrical Conductivity



ANNULAR CONDUCTIVITY DATA QA PROCEDURE & DOCUMENTATION FORM (V.1)

GENERAL

HGI Project Name: 2018-030 - FCP Bulk & Annular Conductivity Monitoring	Project Site: Florence Copper Project	Weather Conditions: Partly Cloudy Windy	
Date 30 OCTOBER 2020	Field Operator Name: C. BALOGH	Start and End Time: 1216 - 1351	
EQUIPMENT		DIAGNOSTICS (See back of sheet for detailed instructions and procedures)	
AGI MiniSting (MS) Serial #: S0608049 ✓ HGI Cray Interface Panel SN# CR-ES-002 ✓		6Ω Resistor Standard Result: 6.445 Pass Criteria: 6.25Ω ± 0.30 Circle One: Pass or Fail	<ul style="list-style-type: none"> No. Cycles: 4 Max Error: Off Max Current: 50mA Measure Time: 3.6 Measure mode: RESISTANCE

DATA COLLECTION:

	WELL ID	Time (24h)	Current (I mA)	1			2			3			Data Acceptance Pass = P, Fail = F
				Reading	Resistance ($\Delta Y = \Omega$)	Error ($\sigma = \%$)	Reading	Resistance ($\Delta Y = \Omega$)	Error ($\sigma = \%$)	Reading	Resistance ($\Delta Y = \Omega$)	Error ($\sigma = \%$)	
1	WB-04	1216	20	98	61.92	2.1	99	62.02	2.8	100	62.05	2.8	P
2	WB-03	1223	20	101	77.49	0.7	102	76.96	1.5	103	76.69	1.8	P
3	WB-02	1230	20	104	81.33	2.4	105	81.65	2.4	106	81.39	2.4	P
4	WB-01	1239	20	107	52.01	1.0	108	50.43	1	109	49.85	1.1	P
5	B-01	1247	20	110	69.20	0.6	111	68.43	0.8	112	68.19	0.9	P
6	B-07	1251	20	113	60.33	0.7	114	59.57	0.9	115	59.16	1.0	P
7	B-06	1256	20	116	57.74	0.9	117	56.04	1.1	118	55.44	1.3	P
8	B-05	1301	20	119	87.10	0.3	120	86.27	0.5	121	85.99	0.5	P
9	B-04	1329	20	123	52.56	0.9	124	51.27	0.7	125	51.04	0.6	P
10	B-03	1342	20	126	52.78	0.7	127	51.80	0.7	128	51.08	0.8	P
11	B-02	1350	20	129	66.19	1.9	130	66.16	1.9	131	65.81	1.9	P

DATA QUALITY ACCEPTANCE	FIELD OBSERVATIONS
Measurement Error Evaluation Pass Criteria: 66% (2/3) of measurement error values less than 5%	(Briefly describe site activities at time of data acquisition, status of electrode arrays, or other parameters that may influence readings) MINI STING DIED(BATT) ON B-04 RDG #122, CHARGED BATT ON-SITE AND FINISHED SURVEY - DELETE 122
SIGNATURES	
By signing, I certify that data collection instrumentation pass all required tests and the data collection process follows all required setup and programming instructions listed within this procedure. C. Balogh 10/30/2020 Field Operator Signature/Date	By signing, I certify that measured data pass all required data quality tests listed within this procedure. C. Balogh 10/30/2020 Data Inspector Signature/Date